

ASVAB

Training Manual

Andy's Asvab Class

Study Book

6th Edition

Read Page 1 Soon As Possible

Andy Smith

For assistance, call Melissa at 833-692-7822 or Melanie at 833-386-7743

www.AndysAsvabClass.com

IMPORTANT

1. You are now a few short weeks from making a big increase in your Asvab score. You will soon be enlisted. Follow my guidance thru your Asvab studies. Ask me anything you want about joining and being in the military. Our classes are not like a normal school or tutor. I am passionate about helping you succeed.
2. About me: I was in the Marine Corps, the Army and the NC Army National Guard. I scored a perfect 99 Asvab score. I graduated Fayetteville State University with a BA degree in Political Science and Education.
3. Make sure you have the ZOOM app on your phone or laptop, etc.
4. Each day, about 15 minutes before each class, I will post on our Facebook Study Group (link below) the pages we will cover and the ZOOM link for class. The link is the same for every class <https://zoom.us/j/463443941> Class ID is 463-443-941. The password to join class is forge
5. Password is 532 for video lessons <https://www.andyasvabclass.com/video>
6. Be active in our group. <https://www.facebook.com/groups/andyasvabclassgroup>
7. ALL lessons in this book need to be done at least 1 or 2 times with me in a live class. It is NOT an “independent study” book.
8. Join any class, any time, any day (unless it says “advanced people only”). We do NOT do the book in page number order; we jump around to different pages every day. JUST join when you can. Class available every day, 7 days a week at 12 noon, 5pm and 8pm eastern time. Classes are about 1 hour and 15 mins each. I will cancel 1 class a week. Learn YOUR time zone.
9. Look over page 2; Asvab Facts!!
10. If you have any questions, call Melissa at 833-692-7822 or Melanie at 833-386-7743

Thanks, Mr. Andy

Important Info about the ASVAB

The Asvab at Meps will include these sections:

1. General Science
2. Arithmetic Reasoning
3. Word Knowledge
4. Paragraph Comp.
5. Math Knowledge
6. Electrical
7. Auto
8. Shop
9. Mechanical Comprehension
10. Assemble Objects

AR, WK, PC, MK create your Asvab Score.

****How do they score the Asvab Test?***

Each question is scored individually. If you get it right... the points you get are based on:

1. **The difficulty (how hard is that question)**
2. **How fast you answer it... answer quicker than the average Asvab test-taker; you get extra points.**

What we cover in class

Everything we cover IS on the real test!

1. Basic Math
 - a. Fractions
 - b. Percent Numbers/Decimals
 - c. Rectangles
2. Vocab
 - a. Eliminate
 - b. Prefix & Root Words
 - c. Advanced Vocab on website
3. Reading Comp.
 - a. Website
 - b. Asvab for Dummies
4. Basic Algebra
5. Basic Fundamentals of AR
6. Special AR Formulas/Problems

This book contains what you must know to increase your score 10 to 30+ points.

Stay motivated to achieve your goal and study every day.

Learn and memorize the info on the: Math Study Guide, Algebra Study Guide, and AR Formulas. The main lessons are noted with the *.

<u>Topics in order</u>	<u>Page numbers:</u>
Math Study Guide	3*
Math Test	4
Algebra Study Guide	5-6*
Algebra Tests 1 and 2	7 and 8
AR Lesson 1	9
AR Lesson 2	10
AR Lesson 3	11-12
AR Test 1	13-14
AR Test 2	15-16
AR Test 3	17-18
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Vocab Eliminate & Quiz	20-21
Advanced Vocab	22-23
Prefix & Root Words	24-2
Final Math Test	27-29
Final AR Test	30-33
Final Fill-in-the-blank Test	34-35
Extra Test (Special)	36-38
PC Test	a-b
Vocab 76-150	c-d

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Basic Math Study Guide

1. **Reduce fractions...** Find a number that will divide into _____ . If both numbers are even numbers; just cut them in half.

Reduce: $3/21 =$

Reduce: $8/18 =$

2. **Change improper fraction to** _____

Divide _____ into the _____. Improper fraction can be correct answer ONLY if the mixed number answer is _____.

Change to $22/7 =$

3. **Change mixed number to improper fraction.**

Mixed numbers are the best answer on a test.

But you _____ do math problems with mixed numbers. You can do math problems with _____ fractions

Multiply 5×4 and add 3. Put that on top = $23/4$

Change to Improper: $5 \frac{3}{4} =$

4. **Reciprocal** means _____ the fraction

5. Reciprocal of $3/13 =$

6. Reciprocal of $5 \frac{2}{3}$

7. Reciprocal of .25

8. Reciprocal Of 13

9. **Add & Subtract Fractions:** 1. _____

Denominator. 2. Change _____ numbers.

3. Add or Subtract the _____ numbers

Add: $\frac{3}{4}$

$\frac{5}{+7}$

Subtract: $3 \frac{1}{2}$

$\frac{2 \frac{7}{8}}$

10. **Multiply fractions:** 1. _____ cross-ways.

2. Multiply straight across top and bottom.

Multiply:

$\frac{3}{5} \times \frac{25}{27}$

11. **Divide fractions.** SCF: Same, Change, Flip.

S C F

Divide: $1/9 \div 2/3 =$

Divide: $3 \frac{1}{3} \div 4 \frac{2}{9} =$

12. **Change a % number to decimal.** Move decimal 2 spaces to the left.

$9\% =$ _____ $37\% =$ _____ $6 \frac{1}{2}\% =$ _____

13. **When a percent number is in an AR problem, you should always** change it to a _____ and _____ it to solve the problem!

Turn page for homework

Basic Math Quiz

- One-fifth has the same value as
 - $5/10$
 - $2/10$
 - $5/1$
- Any number can be divided by 5 if
 - it is an odd number
 - the last digit is 0 or 5
 - the sum of the digits is 5
- Which fraction is reduced to lowest terms?
 - $2/6$
 - $5/10$
 - $3/5$
- Which was created by squaring a number?
 - 10
 - 18
 - 25
- What is $1\frac{1}{2} + 2\frac{3}{4}$?
 - $3\frac{4}{6}$
 - $4\frac{1}{4}$
 - $3\frac{1}{2}$
- Simplify: $15/4 =$
- Change to Improper: $3\frac{3}{4} =$
- Add: $2/3 + 3/4 =$
- Subtract: $3/5 - 1/2 =$
- Multiply: $2/3 \times 21/1 =$
- Divide: $2/9 \div 2/3 =$
- What is 20% of 80?
- Divide: $3\frac{1}{3} \div \frac{2}{9} =$
- What is the reciprocal of: $3/7$
- What is the reciprocal of $7\frac{2}{3}$
- The reciprocal of .50 is?

Algebra Study Guide

1. Add & Subtract positive & negative numbers.

When you add a positive & negative number:

1. _____ the _____
number from the _____ one.

Try this: $4 + (-8) + 2 + (-6) =$

2. (- -) means (+ +): $(-15 - -12) =$

3. Add Like Terms:

$$-3X^2 - 5X + 4X^3 + 1 \text{ to } 6X^3 - 2X + 8X^2 - 9 =$$

4. Solve equations. Use _____

a. Solve: $3 + 5(6 - 3)$

b. Solve: $4 + (19 + 4^2)$

5. When you multiply a letter times itself, you

_____ the exponents. $(X^2)(X^5) =$

6. When you divide a letter with itself, you

_____ the exponents. $X^5 \div X^2 =$

7. Solve for X: Move the letters to the left & move the numbers to the right. When you move something, change its sign!

Solve for X: $7X - 3 = 2X + 12$

Solve for X: $6X - 5 + 4X = 7X + 16$

Solve for X: $7 + 5X - 3X - 5 + 2X = 29 - 5X$

8. Rules for Multiply & Divide Pos & Neg numbers.

Same signs = _____ answer $(-3 \times -4) =$ _____

Different signs = _____ answer $(-3 \times 4) =$ _____

9. FOIL & Factoring: 1. _____ the last numbers,

to get _____ number of answer.

2. _____ the last numbers, to

get _____ number of answer.

FOIL: $(A - 5)(A + 2) =$ Factor: $X^2 + 4X - 12$

A. $A^2 + 3A - 10$

A. $(X + 6)(X + 2)$

B. $A^2 - 2A - 10$

B. $(X - 4)(X + 3)$

C. $A^2 - 7A - 10$

C. $(X - 2)(X + 6)$

D. $A^2 - 3A - 10$

D. $(X + 2)(X - 6)$

10. Square Root of large numbers... "Last Digit"

Multiply _____ digit of each answer times its self until you get the _____ digit in the big number.

Try this: What is Square Root of 289: 14, 15, 16, 17

11. ! Problems...Start with the number, multiply

backwards down to one. $6! = 6 \times 5 \times 4 \times 3 \times 2 \times 1 = 720$

**Memorize these two; they are on the test*:*

$4! =$ _____ $5! =$ _____

$2!3!$ will be $2 \times 1 = 2$ and $3 \times 2 \times 1 = 6$,

Now multiply $2 \times 6 = 12$

$\frac{4}{3!}$ This will be $4/6 = 2/3$

Next problem is on real test

$\frac{7!}{5!}$

12. $4\sqrt{81} = 4 \times 9 = 36$

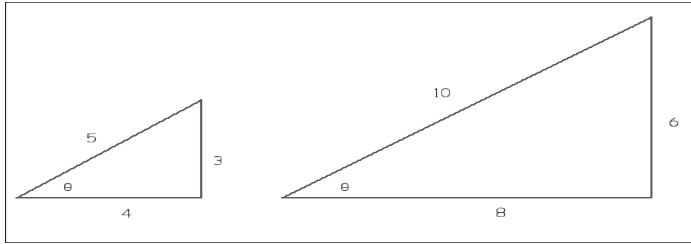
13. Integers are _____ numbers. They

can be _____ or _____ numbers.

13a. What letter represents the slope of a line?

$$Y = MX + B$$

14. The 3-4-5 6-8-10 Right Triangles



Slope of hypotenuse is _____ over _____

Example AR Problems

(a) A Navy ship departs Norfolk and goes 300 miles east. Then it turns and goes 400 miles south. How many miles is the ship from Norfolk Navy Base?

(b) A 10 ft ladder is leaned against an 8 ft wall. How far is the ladder from the wall on the ground?

15. Formulas used on ASVAB

Area of a Triangle: $(b \times h) / 2$

Volume of a Box is $L \times W \times H$ *Cubic means _____

Area of a Rectangle is $L \times W$ *Square means _____

Perimeter of a Rectangle is Add all the sides

Convert sq. feet into sq. yards is $SF/9 = SY$

Which letter is the Slope: $Y = MX + B$

16. Measurement conversions used on ASVAB

12 inches = _____ 3 feet = _____

36 inches = _____ 2 pints = _____

4 quarts = _____ 16 ounces = _____

1 Ton = _____ A Gross = _____

20 degrees C = _____ F and 25C = _____ F

68 degrees F = _____ C and 77F = _____ C

17. $KA=R$, Solve for K then A

18. $B/X=F$, Solve for B the X

19. Try a short Quiz

1. -- means _____
2. When you add a pos numb & neg numb together: _____ the _____ number from the _____
3. Solve for X: Move letters to the _____ then move the numbers to the _____. When you move something, change its _____
4. FOIL & Factoring: Add the last numbers, you get the _____. Multiply last numbers, you get _____.
5. Square root of large number. Multiply the _____ digit in each answer times itself.
6. $4! =$
7. $5! =$
8. The 2 Right Triangles are _____, _____, _____ and _____, _____, _____.
9. Another Right Triangle can be: 9, 12, _____
10. Formula for cubic is _____
Square means same as _____
Convert Square Feet to Square Yards:

11. Area of a Rectangle is _____ x _____
12. Perimeter is adding all the _____
13. $RZ = K$, Solve for Z

NOTES:

Algebra Test 1

- If $X = 2$, then $6X - X =$
 - 12
 - 10
 - 11
- Which of the following is equal to zero?
 - $6 - (6 \times 0)$
 - $(6 \times 0) (8 \times 0)$
 - $0 - 1$
- If $3X - 7 = 18 - 2X$, Solve for $X =$
 - 3
 - 5
 - 9
 - 12
- If $a = -1$, $b = 2$, and $c = 3$, then $a + 4b + 2c =$
 - 15
 - 14
 - 13
 - 12
- $(2X - 2)(3X + 4) =$
 - $6X^2 + 6X - 8$
 - $6X^2 + 4X - 8$
 - $6X^2 + 2X - 8$
 - $6X^2 + 2X + 8$
- Factor: $X^2 + 8X + 16$
 - $(X - 2)(X - 8)$
 - $(X - 4)(X - 4)$
 - $(X + 2)(X + 6)$
 - $(X + 4)(X + 4)$
- Solve: $-2(4 - 1) =$
 - 7
 - 6
 - 6
 - 7
- $(4 - 7)(6 - 3) =$
 - $24 - 12 - 42 + 21$
 - 9
 - 9
 - 18
- What is $6!$ (Do not solve, just write it out)
- If $2a + 2 = 8$, then $a =$
 - 3
 - 4
 - 6
 - 8
- The expression $A - B + A$ is equal to
 - $AB - B$
 - $2A - B$
 - $B + 2A$
 - $B - 2A$
- $(2X^2)(4X^4) =$
- $6X^4 \div 3X^2 =$
- Square Root of $(300 + 24) = 15, 16, 17, 18$
- $4! =$
- $5! =$
- $7 - -5 =$
- $\frac{6!}{4!}$
- Solve for X : $6X - 5 + 4X = 7X + 16$
- Subtract: $12x^2 + 6y - 3$ and $3x^2 - 9y + 12$
- Add: $3x^3 - 2x + 8$, $2x^2 + 5x$, and $x^3 + 2x^2 - 3x - 3$

Algebra Test 2

Add like terms:

- $(-7X^2 + 5X + 4) + (9X^2 - 2X - 6) + (3X^2 + 4X)$
- Solve for X:
 $7 + 5X - 3X - 5 + 2X = 29 - 5X$
- $2x^3y(3x^2y - 4) =$
- Solve: $2(a - b) + 4(a + 3b) =$
- If $X = -7$, then: $2x^2 - 3x + 10 =$
- $15a^3b^2c \div 5abc =$
- $10y^2 - 6y$ subtract $3y - 4y^2$
- What is the value of $|5 - 8|$? Circle Answer
13 -3 3
- What is the value of X? Circle your answer:
 $X + 2 < 12$ 9, 10, 12, 15
- Solve for X: $12X - 6 - 2X = 4X + 12$
- $3^3 + 4(5 - 3)$
- $(12X^2 + 6Y - 3) - (3X^2 - 2Y + 4)$
- $A^2/B \div A^2/B$ [look close before you do SCF] ☺
- $(5 - 2)(7 - 4)^3 + 12 \div 2 =$
- ____ quarts = one and a half gallons
- 2 yards minus 5 feet = ____ inches
- How many cubic inches in a box that is 2" by 3" by 5"
- Solve for X: $5X + 18 + 3X - 2 - 4X = 2X + 24$
- How many $1/4$ lb. burgers make a dozen?
- Rectangle has a perimeter of 48". The length is 4" more than the width. What is the length?
16 14 12 18
- $5! + 4! =$ **Real Test**
a. 12^2
b. 154
c. 9!
d. 149
- If $x = y$, then $6 + 4(x - y) =$

Basic AR Lesson 1

- 1. A man bought 50 brushes at \$3 each. He sold them for \$5 each, how much profit will he make?**
[Profit is: Sell Price–Cost = Profit]
Find the profit on one brush first
- 2. A factory can produce 112 shirts per hour. If a work day is 8 hours, how many shirts can be produced in 4 days? [per means multiply]**
How many shirts made in one day first
- 3. 20 cent candy is on sale--3 for 50 cents. How much will you save on 9 pieces?**
Normal price minus sale price = savings
- 4. If 70% of a class is girls, and there are 30 students in the class; how many boys are in the class?**
Change % to decimal and multiply
- 5. Lisa is 34 years old. Two years ago she was twice as old as her brother. How old is her brother now?**
Use the facts about Lisa
- 6. You change oil every 6000 miles and drive 2000 miles a month; how many times a year do you change oil?**
- 7. 250 people went to a “couples only” party at 9pm. If 70 people left at 11pm, how many couples remained at the party? *Double-check the final question***
- 8. A tub uses 20 gallons of water. A shower uses 15 gallons. If 40 people take a bath instead of a shower, how much extra water is used?**
Do 1 person first
- 9. During a sale, \$2 bars of soap were sold at the rate of 3 for \$5. How much is saved on 9 bars?**
- 10. It takes a person 30 minutes to gather 1 basket of fruit. Working at the same rate, how many baskets can 25 people gather in 8 hours?**
- 11. A basketball team won 40 games during a season of 85 games. What is the ratio of wins to losses?**
W:L
- 12. Next number in this series? 2, 2½, 1½, 2, ____**
- 13. In a certain class, 10 of the 24 students play sports. What is the ratio of students who play sports to those who do not?**
- 14. You and your 2 siblings inherited a 20 acre farm. How many people inherited the farm?**

AR Lesson 2... Measurements, Rectangles

1. You need to put a fence around a rectangle garden. The garden is 6 ft. X 15 ft. How much fence will you buy?
2. Shrimp costs \$12 per pound. You buy 40 ounces. How much will you pay?
3. How many 5 inch pieces of wood can you cut* from a board that is 4 feet long? *Cut means divide
4. A stack of boards is 6 ft. high. Each board is 4 in. thick. How many boards are in the stack?
5. **If floor boards are 2 in. wide, how many are needed to cover a floor 17 ft. wide?**
6. 600 feet of fence surround a rectangular playground that is 100 feet wide. How long is the playground?
400 500 300 200
7. You want to make a picture frame for a photo. The photo is 8 inches by 10 inches. How many feet of wood do you need?
8. **A square shape room has the square feet of 225 what is the length of its side? Circle answer: 12, 14, 15, 16**
9. You bought carpet for a room that measures 18 feet by 14 feet. Carpet costs \$4.00 per square yard. How much did you pay?
10. 1 lb. of ham is cut into slices each weighing 0.25 oz. How many slices will you receive?
11. If 2 gallons of paint is \$19.20, 1 quart is?
12. An equilateral triangle has the same perimeter as a square whose side is 12. What is the length of each side of the triangle?

AR Lesson 3 Special AR Problems --- A lot of these are on the Asvab at Meps

***Change fraction to %:** Divide _____ number into _____ then take answer & multiply with _____ number!
 $\frac{9}{25} \rightarrow 100 = 4$ now $4 \times 9 = 36\%$

1. The % increase or % decrease. Formula is: **D/O** “ _____ over _____ ” Ex. A \$50 shirt is on sale for \$35. **What is the percent decrease** in price? Difference is 15. Original price was 50. So...**D/O is 15/50**.

- Netflix costs \$29 a month this year; it was \$25 a month last year. What is **the percent increase**?
- When Gene was 16yo he was 60 inches tall. On his 19th birthday he was 69 inches tall. What **percent increase** in height did Gene experience from age 16 to age 19?

2. **What percent of.** Formula is **P/T**... _____ over _____. *The “part” is what they ask about!
Ex: There are 14 girls & 11 boys in a class. *What % of the class are girls?* Part is 14, total is 25. $14/25 = 56\%$

- A basketball player made 13 out of 20 shots. **What percent of** the shots did he miss?

3. **What is the Probability?** This is also **P/T** “Part over Total”. Remember to reduce the fraction!

- You have 2 red shirts, three blue shirts, 5 orange shirts. You have 4 pairs of pants in a separate dresser. If you reach in to the dresser with the shirts **what is the probability that you get a red shirt? (on real test)**

4. **Proportions:** Find **the multiplier** and then use it on the item they ask you about. A 20 foot pole has a 7 foot shadow. What is the shadow of an 80 foot pole? You had a 20 foot pole and next you have an 80 foot pole. *The pole was _____ x 4. ($20 \times 4 = 80$). Now _____ the shadow by 4. New shadow will be 28.*

- It takes \$2.00 worth of meat to make **6 sandwiches**. What is the cost of the meat for **42 sandwiches**? =

5. **Ratios**...when a **big number** (usually money) is **divided** in a **ratio**. Example: \$40,000 is divided in the ratio of **4:3:1**
Step 1. Divide the _____ by the _____. So $40,000 \div 8 = 5000$. **Each point is worth \$5000**. The 1st person has 4 points = \$20,000. The 2nd has 3 points = \$15,000. The 3rd has 1 point = \$5000.

- Profits of \$27,000 are divided in a **ratio of 4:3:2**. How much money does the smaller portion get?

6. **Money and interest rate problems:** Deposit \$5000, Interest rate = 6%. Multiply the deposit money times the _____ rate. $\$5000 \times .06 = \underline{\$300}$. This is the amount of interest they earn each _____!

- If you invest **\$3,000 at a 6%** interest rate. How much money will you have in your account in 3 years?
- Sally wants to buy a car. She **deposits \$10,000** into a bank that pays an **interest rate of 9%** each year. The car costs \$12,000. In how many years will she have enough money?

7. **The sum of two numbers is 88**; one number is 12 less than the other. *Step 1.* Cut the _____ number in half. Write both halves on your paper. *2.* Cut the _____ in half. *3.* Now ADD half and SUBTRACT half from each side.

8. When **2 trains, cars or jets go in opposite directions**. Ex. One goes north and one goes south OR one goes east and one goes west. You **add their _____ together**. That will tell you how far apart they get every _____.

- Two jets take off from Charlotte at the same time. **One flies east** at 260 mph **the other goes west** at 340 mph.
 - a. How far apart will the jets be after 3 hours?
 - b. How many hours will they fly to be 3000 miles apart?

9. **Speed—Time—Distance**

Work Space for the Jet question:

7. Speed, Time, Distance

Paycheck

Gasoline



- A train travels 180 miles in 2 hours. A jet goes 7 times faster. How far can the jet fly in 5 hours?
- A car travels 3 hours at 50mph; then travels 40mph for 7 hours. How many miles does it travel during the 10 hours?

10. **If it is on sale for 20% OFF and the sale price is \$68; what was the original price?**

- Take the sale price and divide it by the PERCENT (decimal) YOU PAID. So if 20% off, you paid 80% (.80)

Now... $68 \div .80 = 85$

AR Test 1 Fractions and % Numbers.

1. A radio station uses $\frac{1}{6}$ of* its time for the news. In a 24 hour day, how many hours are used for music & entertainment?
2. You travel 800 miles and work 40 hour a week. You spend $\frac{2}{5}$ of your time traveling, how many hours do you not travel?
3. The total thickness of two pieces of wood glued together. One piece is $\frac{5}{7}$ inches thick and the other is $\frac{2}{3}$ inches thick?
4. If you spend 15% of each day studying; how many hours of the day are you not studying?
5. You have 1 coupon for 10% off 1 pizza. Pizzas cost \$8.50 each. Total cost of 2 pizzas is?
6. Of 500 dogs at a dog show, 30% are male. $\frac{2}{5}$ of the male dogs are over the age of 3. How many dogs are male and over 3 years?
7. It costs \$38 for 2 people to go to the movie theater. 40% of the money was for snacks. What was the cost of each movie ticket?
\$22.80 \$15.20 \$7.60 \$11.40
8. You spend $\frac{1}{5}$ of your income on car payment. You spend $\frac{3}{8}$ of the remainder of your income on rent. What fraction of income is spent on rent?
9. John gets paid \$6 for each of the first 40 toy cars he makes in a week. For any additional cars beyond 40 his pay increases by 50%. How much is he paid if he makes 48 cars?
10. You buy a \$500 TV marked down 15%. You pay a \$65 down payment and agree to pay the balance in 12 equal monthly payments. How much is each payment?
11. You have one coupon for 15% off on one pound of pork chops. They cost \$7 per pound. How much will 3 pounds cost?

- 12.** If 5 shirts and 3 ties cost \$52 and each tie costs \$4, what is the cost of a shirt?
- 13.** A certain bag of potting soil is $\frac{1}{4}$ peat moss and the rest was dirt. What part is dirt?
- 14.** A child is $2\frac{1}{2}$ feet tall. The child's mother is twice as tall as the child. How tall is the child's mother?
- 15.** 400 silver dollars in two bags. If 275 are in one bag. How many are in the other bag?
- 16.** A rental car cost \$20 per day, and a room cost \$50 per day. How many days can a room and a car be rented for \$350?
- 17.** A package of corn chips weighs 1.2 ounces, how many ounces are 48 packages?
- 18.** How many monthly payments must be made to repay an interest-free loan of \$1,540 if monthly payment are \$55 each
- 19.** A woman is looking for a bigger square office. She finds an office twice the area of her current office. If the perimeter of her current office is 88 feet, how many square feet is the new office?
- 20.** If the perimeter of a square garden is 84 ft., what is the area of the garden?
- 21.** How many feet of chain fence are necessary to enclose a dog pen that is square and had an area of 64 square feet?
- 22.** Jamie just bought two boxes. The first box is square, with each side measuring 10 units, and is 4 units high. The second box is rectangular and has twice the volume of the square box. If the height of the second box is 5 units, and the width is 10 units, what is the length of the second box?

AR Test 2

- 2 cars departed the same place at the same time. They traveled the same direction. One traveled 50 mph for 4 hours. The other car traveled 60 mph for 8 hours. How many miles farther did the 2nd car travel?
 - 10
 - 40
 - 200
 - 280
- Your marksmanship scores are 6 and 10 on two tests. If you want to average 9 on three tests, what must your third score be?
 - 8
 - 9
 - 11
 - 14
- A boy rode 6 miles on his bicycle in 1 day. The 2nd day he rode $\frac{1}{3}$ as far. How many miles did he ride altogether?
 - 2
 - $6\frac{1}{3}$
 - 8
 - 18
- Each one of four pies were cut into 8 pieces for dinner. After dinner there remained $\frac{1}{2}$ of a pie, $\frac{1}{4}$ of a pie, $\frac{3}{8}$ of a pie and $\frac{5}{8}$ of a pie. How many pieces of pies were left?
 - 7
 - 14
 - 15
 - 18
- A lady took a 500-mile trip. She traveled a certain number of miles by car, then nine times as far by airplane. How many miles did she travel by car?
 - 30 miles
 - 40 miles
 - 50 miles
- A 12 inch ruler is divided into 3 parts. The large part is 3 times longer than the small. The medium part is 2 times long as the smallest. How long is the smallest part?
 - $\frac{1}{3}$ inch
 - 1 inch
 - 2 inches
 - 3 inches
- 30% to 50% of the money is for frozen food, a family spends \$120 a month on food, what is the greatest amount spent on frozen food?
 - \$36
 - \$50
 - \$60
 - \$96
- Spark plugs are changed every 15,000 miles. If a truck runs 5,000 miles a month, how many times a year will the spark plugs be changed?
 - 3
 - 4
 - 6
 - 10
- A movie theater seats 450 people. How full is the theater when 150 people are seated?
 - $\frac{1}{3}$
 - $\frac{1}{4}$
 - $\frac{3}{5}$
 - $\frac{2}{3}$
- A ferries wheel goes around once every 20 seconds. How many times will it go in 8 mins?
 - 23
 - 24
 - 25
 - 160
- How many 3 inch pieces can you cut from 5 yards cloth?
 - 60
 - 50

- C. 30
D. 15
12. A flight is plotted on a map having the scale 1 inch = 400 miles. On the map it is $9\frac{1}{2}$ inches from point A to point B. If a plane flies this distant at the speed of 300 mph, how long will the trip take?
- A. 6 hours, 20 minutes
B. 10 hours, 10 minutes
C. 12 hours, 40 minutes
D. 14 hours, 30 minutes
13. A sailboat went sideways 4 feet for every 30 feet it went forward. How many feet sideways did it go while it was going forward 360 feet?
- A. 14
B. 30
C. 48
D. 90
14. You get 3 rolls of coins from the bank. Each roll contains \$5. You get 1 roll of each dimes, quarters & half dollars. How many coins does he have in all?
- A. 170
B. 34
C. 48
D. 80
15. \$26,000 is divided in the ratio of 3:4:6. Compared with the small share the largest share is?
- A. $1\frac{1}{6}$ times as great
B. $1\frac{1}{3}$ times as great
C. $1\frac{1}{2}$ times as great
D. 2 times as great
16. A man is 3 times as old as his son. The sum of their ages is 48 years. How old is the son?
- A. 36 years
B. 18 years
C. 16 years
D. 12 years
17. Mike has baseball cards and football cards. The ratio of baseball cards to football cards is 5:7. He has 40 baseball cards. How many football cards does he have?
18. Six miles of fence surround a rectangular field half a mile wide. How long is that field?
- A. $2\frac{1}{2}$ miles
B. $2\frac{3}{4}$ miles
C. $4\frac{1}{2}$ miles
D. $5\frac{1}{2}$ miles
19. How many $4\frac{1}{2}$ gallon cans of gas would you need to pour into an empty 18 gallon tank to fill it exactly halfway?
20. A person can do a job in 6 days. Another can do the same job in 4 days. If they work together, how long do they need to finish the job?
- A. 10 days B. 2 days
C. 5 days D. 2 and $\frac{2}{5}$ days

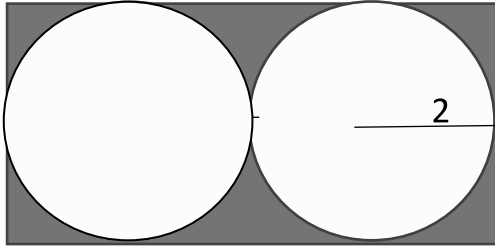
AR Test 3

1. To find the percent increase, the formula is?
2. The cost of a leather coat went up from \$75 to \$90. What is the percent increase?
3. **A flag pole is 20 ft. tall and cast a shadow of 40 ft. Another pole has a shadow of 80 ft. How tall is the 2nd pole?**
4. A machine caps 5 bottles every 2 seconds. How many bottles can it cap in 1 minute?
5. To find "what percent of", the formula is?
6. A new unit has been formed in the Army. In this unit, 1 member is a SSGT, 3 are SGT's, 21 are PFC's and 35 are PVT's. What percent of the unit are PFC's?
7. A box of chocolate has 45 pieces. 9 pieces have nuts in them, what percent of the candy is without nuts?
8. Vanessa has a lot of headbands. Twenty are pink, 32 are blue, and 16 are black. If she picks a headband at random, what is the probability that it will not be black?
9. If \$63,000 is divide among 3 people in a ratio of 5:3:1; what do you do first? Divide the _____ number by the total _____.
10. If the ratio of home fans to visiting fans is 5:2 and all 42,000 seats in a stadium are filled, how many visiting fans are in attendance?
11. Put money in the bank to earn interest, what is the first thing you do? Multiply the money times the _____ rate.
12. You deposit \$4,000 in the bank at 4% interest. How much interest will you earn after 3 years?
13. The sum of two numbers is... Cut _____ number in half; write both on your paper. Cut small number in half and _____ half to one side; and _____ half to other side.

14. The sum of two numbers is 48. The small number is 6 less than the big number. What is the small number?
15. Two trains depart Charlotte at the same time. One train heads north at 60 mph. The other train heads south at 40 mph. After $4\frac{1}{2}$ hours, how far apart are the trains?
16. The number of inches in a foot times the number of quarts in a gallon divided by the number of ounces in a pound plus the number of pints in a quart minus the number of feet in a yard?
17. You drive to Atlanta. You travel 4 hours at a speed of 60 mph. When you return home, you drive slower. How long will it take to get back home if you drive 40 mph?
18. The price of a microwave oven went up from \$75 to \$90; then went on sale for \$57. What is the percent decrease from the original price to the sale price?
19. If 6 workers can paint a house in 2 days; how many days will it take for 3 workers to paint the same house?
20. Out of 25 attempts, a basketball player scored 17 times. One-half of the missed shots are what % of the total shots?
21. Deposit \$2,000 in the bank at 10% interest. How many years will it take to double your money?
22. A new unit has been formed in the Army. In this unit, 1 member is a Staff Sergeant, 3 are Sergeants, 21 are PFC's and 35 are PVT's. What percent of the soldiers are in the Army?
23. **Together, two people earn \$28,000. One earns \$2,000 more than the other. How much is the smaller income?**

AR Test 4

1. What is the area of the rectangle, when both circles have a radius of 2?



2. In a class of 25 students, 13 are taking German and 11 are taking Spanish. *Four students are taking both courses.* How many students are not enrolled in either course?

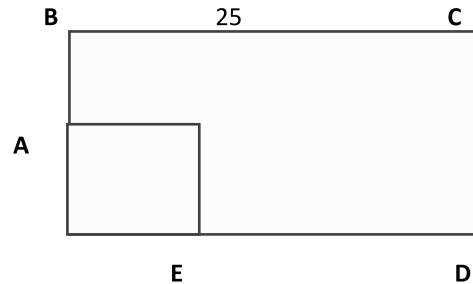
3. A football player's parents spent \$119 on tickets for friends to attend the game. Tickets were \$7 and \$10 and they bought an equal number of both kinds. How many \$7 tickets did they buy?

4. A machine in a factory has an error rate of 10 parts per 100. The machine normally runs 24 hours a day and produces 30 parts per hour. Yesterday the machine was shut down for 4 hours for repairs. How many good parts did it produce yesterday?

5. Cities A & B are 5 inches apart on a map. Cities C & D are 4 inches apart. If C & D are 900 miles apart, how many miles apart are cities A and B?

6. Admission to a museum is \$8 for adults and half that price for children. If 350 adults went to the museum, and \$3200 was collected. How many children went to the museum that day?

7. The perimeter of this rectangle is 80. The square is 144 square feet. The length of BC is 25ft. What is the total length from A to B to C to D to E?



8. A professional singer charges \$1000 an hour. Her rate increases by 50% after midnight. If she performs one night from 8:30pm to 1:00am, how much will she be paid?

9. In professional baseball, each team plays 160 games. After playing half their games, team A has won 60 and team B has won 49. If team A wins half of its remaining games, how many of its remaining games must team B win to have the same number of wins as team A?

The best way to handle vocab words you don't know is...Eliminate answer choices that mean the same, then choose one of the two that remain. See # 1. Now you try the rest.

1. XXXXXX
 - a. Unbelievable
 - ~~b. Important~~
 - ~~c. Significant~~
 - d. Cooperative
2. XXXXXX
 - a. Cheerful
 - b. Sad
 - c. Joyful
 - d. Menacing
3. XXXXXX
 - a. Satisfied
 - b. Increased
 - c. Discover
 - d. Continued
4. XXXXXX
 - a. Prohibit
 - b. Explain
 - c. Promote
 - d. Support
5. XXXXXX
 - a. Reject
 - b. Inspect
 - c. Warn
 - d. Supervise
6. XXXXXX
 - a. Outrageous
 - b. Insulting
 - c. Mundane
 - d. Offensive
7. XXXXXX
 - a. Preserve
 - b. Cancel
 - c. Maintain
 - d. Transform

8. XXXXXX
 - a. Poignant
 - b. Unrelated
 - c. Valuable
 - d. Important
9. XXXXXX
 - a. Enhanced
 - b. Improved
 - c. Explained
 - d. Misled
10. XXXXXX
 - a. Confusing
 - b. Difficult
 - c. Excessive
 - d. Fair
11. XXXXXX
 - a. Gloomy
 - b. Possible
 - c. Expected
 - d. Happy
12. XXXXXX
 - a. Exciting
 - b. Interesting
 - c. Procrastinate
 - d. Monotonous
13. XXXXXX
 - a. Suffer
 - b. Contain
 - c. Weaken
 - d. Thrive

Vocab Quiz--on real Asvab

1. Massive
 - A. Remote
 - B. Large
 - C. Dangerous
 - D. Dark
2. Compatible
 - A. Agreeable
 - B. Impossible
 - C. Swift
 - D. Uncertain
3. Adequate
 - A. Immediate
 - B. Sufficient
 - C. Final
 - D. Obscure
4. Migrate
 - A. Move
 - B. Recline
 - C. Rest
 - D. Allow
5. Incision
 - A. Plan
 - B. Strategy
 - C. Cut
 - D. Graft
6. Skeptical
 - A. Biased
 - B. Doubtful
 - C. Evasive
 - D. Misinformed
7. Infuriate
 - A. Confuse
 - B. Anger
 - C. Dilute
 - D. Interject
8. Obligation
 - A. Duty
 - B. Undertaking
 - C. Assembly
 - D. Problem
9. Amend
 - A. Corrupt
 - B. Rumor
 - C. Improve
 - D. Interest
10. Origin
 - A. Proclivity
 - B. Beginning
 - C. Pattern
 - D. Ending
11. Anticipate
 - A. Predict
 - B. Remember
 - C. Recall
 - D. Surprise
12. Commend
 - A. Help
 - B. Render
 - C. Praise
 - D. Observe
13. Terminate
 - A. Amend
 - B. Program
 - C. Conclude
 - D. Define
14. Repulsive
 - A. Changeable
 - B. Different
 - C. Disgusting
 - D. Childish
15. Immense
 - A. Old
 - B. Huge
 - C. Attractive
 - D. Impressive
16. Evident
 - A. Maybe
 - B. Clear
 - C. Legal
 - D. Final
17. Exclusive
 - A. Dangerous
 - B. Select
 - C. Hazard
 - D. Incompatible
18. Dormant
 - A. Diligent
 - B. Inactive
 - C. Powerful
 - D. Strong
19. Flourish
 - A. Grind
 - B. Feed
 - C. Thrill
 - D. Thrive
20. Abolish
 - A. Support
 - B. End
 - C. Shine
 - D. Assist

Advanced ASVAB VOCABULARY 150 words

1. charge assign a duty, responsibility or obligation to
2. pursue follow or chase
3. reside live (in a certain place)
4. compel force somebody to do something
5. imperial relating to or associated with an empire
6. primary of first rank or importance or value; direct and immediate rather than secondary
7. revive cause to regain consciousness
8. eventual expected to follow in the indefinite future from causes already operating
9. melancholy to be gloomy and depressed
10. comparison the act of examining resemblances
11. concede give up or surrender
12. contrive make or work out a plan for; devise
13. harbor a sheltered port where ships can take on or discharge cargo
14. fatigue temporary loss of strength and energy resulting from hard physical or mental work
15. poll the counting of votes (as in an election)
16. indignant angered at something unjust or wrong
17. picturesque suggesting or suitable for a picture; pretty as a picture
18. canvas a heavy, closely woven fabric (used for clothing or chairs or sails or tents)
19. alleged doubtful or suspect
20. invariable not liable to or capable of change
21. forge create by hammering
22. tyrant a cruel and oppressive dictator
23. enlighten make free from confusion or ambiguity; make clear
24. discretion the power of making free choices unconstrained by external agencies
25. assertion a declaration that is made emphatically (as if no supporting evidence were necessary)
26. antiquity the historic period preceding the Middle Ages in Europe
27. attentive taking heed; giving close and thoughtful attention
28. diverse distinctly dissimilar or unlike
29. assess evaluate or estimate the nature, quality, ability, extent, or significance of
30. chivalry the medieval principles governing knighthood and knightly conduct
31. ecstasy a state of elated bliss
33. detest dislike intensely; feel antipathy or aversion towards
34. preface a short introductory essay preceding the text of a book
35. exhort spur on or encourage especially by cheers and shouts
36. authentic not counterfeit or copied
37. conjure summon into action or bring into existence, often as if by magic

38. arrogant having or showing feelings of unwarranted importance out of overbearing pride
39. discord lack of agreement or harmony
40. improbable not likely to be true or to occur or to have occurred
41. heresy a belief that rejects the orthodox tenets of a religion
42. impede be a hindrance or obstacle to
43. impartial free from bias or preconceived opinions
44. malicious bad intentions
45. advisable worthy of being recommended or suggested; prudent or wise
46. allure the power to entice or attract through personal charm
47. deter try to prevent; show opposition to
48. applicable capable of being applied; having relevance
49. abyss a bottomless pit; a cavity or chasm
50. yarn a cord used in sewing and weaving
51. theoretical concerned primarily with theories or hypotheses rather than practical considerations
52. myriad a large indefinite number
53. sprawl sit or lie with one's limbs spread out
54. seminary a theological school for training ministers or priests
56. benefactor a person who helps people or institutions (especially with financial help)
57. dilemma state of uncertainty requiring a choice between equally unfavorable options
58. wager a bet
59. context the set of facts or circumstances that surround a situation or event
61. sequel something that follows something else
62. solace comfort in disappointment or misery
64. drone an unchanging intonation
65. incite provoke or stir up
66. repugnant offensive to the mind
67. enigma something that baffles understanding and cannot be explained
68. brazen face with defiance or impudence
69. clerical engaged in office work
70. inquisitive inquiring
71. betrothed engaged to be married
72. submerge put under water
73. fallacy a misconception resulting from incorrect reasoning
74. abashed feeling or caused to feel uneasy and self-conscious
75. stint supply sparingly and with restricted quantities

Prefixes

A-, an-	without	amoral, anaerobic
Ante-	before	antedate, antechamber
Anti-	against, opposing.	Antipollution, antipathy
Auto-	self.	Autobiography, autopilot
Bene-	good or well.	Beneficial, benediction
Bi-	two.	Bicycle, bipolar
Cen-	hundred, hundredth.	Century, centimeter
Circum-	around.	Circumnavigate, circumvent
Co-	together, with.	Co-author, copilot
Com-	bring together.	Complete, compile
Contra-	against.	Contradict, contraband
Counter-	opposite, against.	Counterclockwise, counterterrorism
De-	away from, down, undoing.	Deactivate, detract
Dis-	the opposite, undoing.	Disagree, disarm
Ex-	out of, away from.	Exhale, expropriate
Hetero-	different.	Heterogeneous, heterodox
Homo-	same.	Homogenized, homonym
Hyper-	above, excessive	hyperactive, hypertension
Il/in/ir-	not.	Illiquid, inaudible, irregular
Inter-	between.	Intercontinental, interject
Intra-	within.	Intramural, intranet
Mal-	bad or ill.	Maladjusted, malevolent
Micro-	small.	Microbiology, microscope
Mis-	bad, wrong.	Misbehave, misunderstood
Mono-	one.	Monosyllable, monorail
Neo-	new.	Neoclassical, neophytes
Non-	not.	Nonessential, nonconformist
Pan-	all, all over.	Pandemic, panorama
Poly-	many.	Polygon, polynomial
Post-	after, behind.	Postpone, postnatal
Pre-	before.	Preview, premeditate

Pro-	forward, before, in favor of.	Promote, projection
Re-	back, again.	Rewrite, retract
Retro-	backward.	Retrofit, retroactive
Semi-	half.	Semiannual, semifinal
Sub-	below, under.	Submarine, subway
Super-	above, over.	Supersede, supervise
Syn/sym-	together at the same time.	Symbiosis, synchronize
Tele-	from a distance.	Telecommunicate, telemetry
Therm-	heat.	Thermal, thermometer
Trans-	across.	Transcontinental, transatlantic
Un-	not.	Unannounced, unnoticed
Uni-	one.	Unicycle, unify
Vert/verse-	change.	Revert, reverse

Root Words

Act-	do.	Transact, activate
Aero-	air.	Aerobics, aerospace
Ambu-	walk.	Ambulate, ambulatory
Anthrop-	human.	Anthropology, philanthropy
Annu, anni-	year.	Annual, anniversary
Aster, astr-	star.	Astronomy, asterisk
Audi-	hear.	Audible, auditory
Biblio-	book.	Bibliography, bibliographic
Bio-	life.	Biosphere, biography
Brev-	short.	Brevity, abbreviate
Capit-	head.	Decapitate, capital
Card, cour-	heart.	Cardiology, discord
Carn-	flesh.	Carnivorous, carnage
Cede-	go.	Procede, recede
Chron-	time.	Chronology, synchronize
Cide-	killing.	Suicide, homicide
Cis-	cut.	Precise, scissors
Cogn-	know.	Cognition, recognize

Crat-	rule.	Autocratic, democrat
Culp-	blame.	Culpable, exculpate
Dem-	people.	Democracy, demmographics
Dic, dict-	speak.	Dictation, predict
Dorm-	sleep.	Dormitory, dormant
Fer-	carry.	Transfer, refer
Fuge-	flee.	Refuge, centrifugal
Geo-	earth.	Geography, geologic
Gram-	something written or recorded.	Telegram, cardiogram
Graph-	to write.	Graphic, calligraphy
Jac, ject-	throw.	Eject, trajectory
Jur-	law.	Jury, jurisprudence
Labor-	work.	Laboratory, collaborate
Loc-	place.	Location, co-locate
Luc-	light.	Translucent, illuminate
Manu-	hand.	Manuscript, manufacture
Meter-	measure.	Metric, barometer
Morph-	form.	Morphology, amorphous
Mort-	die.	Mortuary, mortal
Omni-	all.	Omnipresent, omnipotent
Op, oper-	work.	Cooperate, operator
Path-	feeling, suffering.	Empathy pathetic
Ped, pod-	foot.	Pedal, Podiatry
Phobe-	fear.	Phobic, claustrophobia
Phon-	sound.	Phonograph, stereographic
Photo-	light.	Photographic, telephoto
Phys-	nature, body.	Physique, physical
Scrib-	write.	Scribble, scribe
Ter-	earth.	Extraterrestrial, territory
Vac-	empty.	Vacuous, evaporate
Verb-	word.	Verbose, proverb
Vid, vis-	see.	Video, television

Final MATH Test

47. The cube of 5 is:

- (A) 125
- (B) 25
- (C) 15
- (D) 50

48. $2.5 \times 33 =$

- (A) 82.5
- (B) 75.0
- (C) 67.5
- (D) 675.0

49. $(12 \text{ yards} + 14 \text{ feet}) \div 5 =$

- (A) 12 feet
- (B) $51/5$ feet
- (C) 10 feet
- (D) $21/2$ yards

50. $(x + 4)(x + 2) =$

- (A) $x^2 + 6x + 6$
- (B) $x^2 + 8x + 8$
- (C) $x^2 + 8x + 6$
- (D) $x^2 + 6x + 8$

51. Which of the following is an integer?

- (A) $2/7$
- (B) 50
- (C) $8^{1/2}$
- (D) 423.77

52. If $A = 4$, then $A^3 \div A =$

- (A) 4
- (B) 12
- (C) 64
- (D) 16

53. Solve for 5!

54. Removed

55. $\sqrt{49} \times \sqrt{64} =$

- (A) 56
- (B) 15
- (C) 42
- (D) 3,136

56. In the fraction $3/X$, the X may not be substituted by which of the following? 4, -5, 1, 10, 4.3

57. If $2 + x \geq 4$, what is the value of x ?

- (A) 6
- (B) 2
- (C) 4
- (D) All the above.

58. If a circle has a radius of 12 feet, what's its circumference most nearly? Hint: $C = \pi \times d$ $\text{Pi} = 3.14$

- (A) 24 feet
- (B) 72 feet
- (C) 75 feet
- (D) 36 feet

59. Convert 24% to a fraction.

- (A) $6/25$
- (B) $1/25$
- (C) $6/24$
- (D) $1/24$

60. The cube root of 64 is:

- (A) 3
- (B) 9
- (C) 2
- (D) 4

61. The reciprocal of $\frac{1}{6}$ is:

- (A) $\frac{6}{1}$
- (B) 3
- (C) 6
- (D) $\frac{1}{3}$

62. If $.05 \div x = 1$, then $x =$

- (A) .05
- (B) .5
- (C) 50.0
- (D) 5.0

63. Factor $x^2 - 6x + 9$.

- (A) $(x + 3)(x + 3)$
- (B) $(x - 1)(x - 9)$
- (C) $(x - 3)(x - 3)$
- (D) $(x + 3)(x + 3)$

64. $(3 \times 2)(7 - 2)(6 + 2) = (6 \times 4)X$. What's the value of x ?

- (A) -5
- (B) 5
- (C) 10
- (D) 1

65. Solve for x : $2x - 6 = x + 5$

- (A) 3
- (B) 11
- (C) 7
- (D) 5

66. $4! =$

67. If $a + b = a + x$, then $b =$

- (A) $b^3 - a^3$
- (B) x
- (C) $a^3 - b^3$
- (D) a

68. If $y = 6$, then $2y^2 + 28 =$

- (A) 12
- (B) 172
- (C) 100
- (D) 242

69. Solve for x : $5x + 7 = 6(x - 2) - 4(2x - 3)$

- (A) 1
- (B) -1
- (C) 2
- (D) -2

70. If $-5x = 25$, x equals:

- (A) -5
- (B) 5
- (C) 10
- (D) 0

71. A circle measures 12 feet in diameter. What's its area to the nearest foot? Hint: Area of a circle is: $\pi \times$ radius squared.

- (A) 452
- (B) 24
- (C) 113
- (D) 48

72. If $x = y$, $6 + 4(x - y) =$

- (A) $6xy + 4$
- (B) $6 + 4xy$
- (C) $10x - 10y$
- (D) 6

73. 12 yards + 14 feet \div by 2 =

- (A) 25 feet
- (B) 12 feet
- (C) 32 feet
- (D) 8 feet

74. 2 feet 4 inches + 4 feet 8 inches =

- (A) 6 feet 8 inches
- (B) 7 feet
- (C) 7 feet 2 inches
- (D) 8 feet

75. $\sqrt{49} \div \sqrt{64} =$

- (A) $\frac{1}{4}$
- (B) $\frac{1}{2}$
- (C) $\frac{1}{3}$
- (D) $\frac{7}{8}$

76. $\frac{6y}{10} \div \frac{3}{5x}$

- (A) xy
- (B) $\frac{15xy}{11}$
- (C) $\frac{12}{55xy}$
- (D) $30xy$

77. $\frac{6y}{10} \times \frac{3}{5x}$

- (A) $6y + 5x = 30$
- (B) $12y + 55x$
- (C) $\frac{9y}{25x}$
- (D) $\frac{3y}{5}$

78. If $8x + 5x + 2x + 4x = 114$, then $5x + 3 =$ _____

79. If $R=5Z$ then $15Z=3Y$, then $R=?$

80. If the value of X and Y in the fraction $\frac{XZ}{Y}$ are both tripled, how does the value of the fraction change?

- Increases by half?
- Remains the same?
- Triples?
- Decreases by half?

81. What is the next number? 1, $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, _____

82. Subtract $12x^2 + 6y - 3$ and $3x^2 - 9y + 12$

Final AR Test

1. The sum of two numbers is 64. One number is 8 more than the other. What are the two numbers?

- (A) 32 and 32
- (B) 40 and 24
- (C) 36 and 28
- (D) 56 and 8

2. A waitress received a tip of 12% of a \$375 food bill. How much money in tips did she earn?

- (A) \$37
- (B) \$45
- (C) \$42
- (D) \$420

3. Carpet costs \$7.00 per square yard. How much will it cost for a 16-foot x 18-foot carpet?

- (A) \$288.00
- (B) \$2016.00
- (C) \$224.00
- (D) \$32.00

4. Joe received an hourly wage of \$8.15. His boss gave him a 7% raise. How much does Joe make per hour now?

- (A) \$0.57
- (B) \$8.90
- (C) \$8.72
- (D) \$13.85

5. If you take a test with 50 questions and get 45 correct; what percent of the questions did you get correct?

- (A) 80%
- (B) 40%
- (C) 60%
- (D) 90%

6. Deposit \$3,000 in the bank at 7% interest; how many years before you can buy a car that costs \$3500?

- (A) 1
- (B) 2
- (C) 3
- (D) 4

7. You drive 1650 miles at 50 mph; how long will it take?

- (A) 8 hours
- (B) 30 hours
- (C) 33 hours
- (D) 82 hours

8. Two trains left the station at the same time. One headed north at 55 mph and the other headed south at 70 mph. How many miles apart were the trains at the end of 3 hours?

- (A) 210 miles
- (B) 165 miles
- (C) 125 miles
- (D) 375 miles

9. You need 4 sections of wood. Each one is 3 feet 8 inches long. If the board is only sold by the foot, what's the shortest length of board you can buy?

- (A) 15 feet
- (B) 14 feet
- (C) 16 feet
- (D) 12 feet

10. Jack loaned Bob \$1,500 at an annual interest rate of 7%. After one year, how much will Bob owe Jack?

- (A) \$105
- (B) \$1,500
- (C) \$1,605
- (D) \$1,507

11. A 2-ton truck is taxed at a rate of \$0.12 per pound. How much is the total tax bill?

- (A) \$480
- (B) \$240
- (C) \$120
- (D) \$600

12. A pint of milk is what part of a gallon?

- (A) $\frac{1}{8}$
- (B) $\frac{1}{4}$
- (C) $\frac{1}{16}$
- (D) $\frac{1}{6}$

13. The cost of a TV increased from \$250 to \$280. The percent increase was how much?

- (A) 16%
- (B) 10%
- (C) 15%
- (D) 12%

14. Last year, a farmer grew 50 bushels of corn. This year, the yield has increased 8%. How many bushels of corn did he grow this year?

- (A) 4
- (B) 52
- (C) 60
- (D) 54

15. You need to shred 900 documents. If you can shred documents at a rate of 7 per minute, the number of documents remaining after 1 and $\frac{1}{2}$ hours of shredding is:

- (A) 630
- (B) 90
- (C) 270
- (D) 810

16. A shirt normally costs \$18.50. How much money is saved if it is purchased at a 20% discount?

- (A) \$1.85
- (B) \$14.80
- (C) \$4.50
- (D) \$3.70

17. You earn 8% on your money and the bank pays you \$3,200 in interest; how much money did you deposit?

- (A) \$40,000
- (B) \$4,000
- (C) A lot of money
- (D) \$19,600

18. A bricklayer charges \$8 per square foot to lay a patio. How much would it cost for the bricklayer to lay a 12-foot-x-16-foot patio?

- (A) \$960
- (B) \$192
- (C) \$224
- (D) \$1,536

19. A plumber needs four lengths of pipe, each 3-foot, 6-inches long. How many feet does he need to buy?

- (A) 15
- (B) 16
- (C) 14
- (D) 12

20. A rectangle is eight inch long and its diagonal is ten inches. What's the width of the rectangle?

- (A) 3 inches
- (B) 6 inches
- (C) 4 inches
- (D) 5 inches

21. If you build a fence around garden that measures 10 x 15 feet; how many feet of chain link fence will you need?

- (A) 150 feet
- (B) 25 feet
- (C) 32 feet
- (D) 50 feet

22. If you passed seven Asvab quizzes and failed three. The fraction of quizzes you passed is?

- (A) $\frac{7}{3}$
- (B) $\frac{3}{7}$
- (C) $\frac{7}{10}$
- (D) $\frac{3}{5}$

23. A 3-yard-long ribbon was used to trim four dresses. Each dress used the same amount of ribbon. How much ribbon was used for each dress?

- (A) 1 yard
- (B) $\frac{2}{3}$ yard
- (C) $\frac{1}{2}$ yard
- (D) $\frac{3}{4}$ yard

24. At a company picnic, $\frac{1}{2}$ of the people are employees. $\frac{2}{5}$ are employees' spouses. What percent are neither?

25. Tom is flying a kite at the end of a 500-foot string. His friend Kathy is standing directly under the kite 300 feet away from Tom. How high is the kite above Kathy?

- (A) 300 feet
- (B) 350 feet
- (C) 400 feet
- (D) 450 feet

26. Eleven plus forty-one is divided by a number. If the result is 13, what's the number?

- (A) 2
- (B) 4
- (C) 6
- (D) 8

27. Theodore had 24 baseball cards. He sells $\frac{1}{4}$ of his cards to Tom, $\frac{1}{3}$ of his cards to Larry. How many baseball cards does Theodore have left?

- (A) 14
- (B) 15
- (C) 12
- (D) 10

28. If you travel 200 miles in 300 minutes. How fast did you travel in MPH...mile per hour?

- (A) 30 mph
- (B) 40 mph
- (C) 50 mph
- (D) 60 mph

29. If you invest \$4,000 in an account that earns 3% interest. How much will you have in the account in 10 years?

- (A) \$4,500
- (B) \$4,800
- (C) \$5,200
- (D) \$5,400

30. Three apples plus twice as many pears add up to one-half the number of grapes in a fruit basket. How many grapes are in the basket?

- (A) 8
- (B) 18
- (C) 28
- (D) 38

31. Hamburger is on sale for "Buy 2 lbs. get 1 lb. free." How many lbs. must Janet purchase to get 2 pounds free?

- (A) 2 pounds
- (B) 4 pounds
- (C) 6 apples
- (D) 3 pounds

32. If 4 pipes of equal length measure 44 feet when they're connected together, how long is each pipe?

- (A) 11 feet
- (B) 4 feet
- (C) 22 feet
- (D) 9 feet

33. A librarian wants to shelve 532 books. If 4 books fit on a 1-foot length of shelving, how many feet of shelving does she need to shelve all the books?

- (A) 13
- (B) 45
- (C) 33
- (D) 133

34. On a map, $\frac{1}{2}$ inch equals 1 mile. What length on the map equals 5 miles?

- (A) 2.5 inches
- (B) 5.0 inches
- (C) 10.0 inches
- (D) 1.5 inches

35. The DVD-rental store charges \$2.00 for the first day a DVD is overdue and \$1.25 for each day after that. If a person paid \$8.25 in late fees, how many days was the DVD late?

- (A) 7 days
- (B) 6 days
- (C) 4 days
- (D) 5 days

36. A $\frac{1}{2}$ cup of pudding has 150 calories. The same amount of broccoli has 60 calories. How much broccoli can you eat to equal the same number of calories in the $\frac{1}{2}$ cup of pudding?

- (A) 2 cups
- (B) $2\frac{1}{2}$ cups
- (C) $1\frac{1}{2}$ cups
- (D) $1\frac{1}{4}$ cups

37. You earn \$12.00 an hour for a 40-hour week. Overtime pay is 1 and $\frac{1}{2}$ times your base pay. If you work 46 hours; how much is your paycheck?

- (A) \$588
- (B) \$688
- (C) \$720
- (D) \$620

38. A jet flies over the Air Force Base at 10:20 a.m. At 10:32 a.m., the plane passes over the Navy Base Station, 120 miles away. How fast is the aircraft traveling?

- (A) 400 mph
- (B) 500 mph
- (C) 600 mph
- (D) 700 mph

39. A baker sells a dozen donuts for \$3.99. The cost to make three donuts is \$0.45. What is the profit on 5-dozen donuts?

- (A) \$17.70
- (B) \$13.20
- (C) \$2.19
- (D) \$10.95

40. A bin of candy holds $10\frac{1}{2}$ lbs. How many $\frac{3}{4}$ lb. boxes of candy can you put in the bin? (put in means divide)

- (A) 14 boxes
- (B) 15 boxes
- (C) 7 boxes
- (D) 100 boxes

41. How long will you have to wait for \$2,500 invested at 6% earns \$600 in interest?

42. After buying a television for \$750, you realize you got a great deal and decide to sell the TV for a 10% profit. What price will you sell the TV?

43. You worked 22 hours one week and made \$198. If you work 15 hours next week, how much will you make?

44. During a festival, the number of visitors tripled each day. If the festival opened on a Thursday with 300 visitors, what was the attendance on Sunday?

Final Test Fill-in Blanks

- 1. Reduce fractions...** Find a number that will divide into both _____. If both numbers are even numbers; just cut them in half.
- 2. Fix improper fraction...**
Divide _____ into the _____.
NEVER choose _____ fraction for test answer!!
- 3. Change mixed number to improper fraction.**
Mixed numbers are the best answer choice on a _____. You _____ add, subtract, multiply or divide mixed numbers. You cannot do reciprocal of a _____
- 4. Add and Subtract Fractions:**
 1. _____ Denominator.
 2. Change _____ numbers.
 3. Add or Subtract the _____ numbers
 4. Reduce.
- 5. Multiply fractions:**
 1. _____ cross-ways.
 2. Multiply straight across top and bottom.
- 6. Divide fractions.** What is SCF?
- 7. Reciprocal** means _____
- 8. Change a % number to decimal.**
Move decimal _____ spaces to the _____.
Change a % number to a fraction
Write the number over _____
- 9. When you see a percent number in AR problems...**
Always change it to a _____ and _____
- 1. Add & Subtract positive & negative numbers.**
When you add a positive & negative number:
 1. Subtract the _____ number from the big number.
 2. (- -) means ()
 3. **Solve equations.** Use P _ _ _ _ _
 4. **When you multiply a letter with itself...**
You will actually _____ the exponents.
 5. **When you divide a letter by itself...**
You will _____ the exponents.
 6. **Solve for X:** Move the letters to the _____.
Move the numbers to the _____.
When you move something, change its _____
 7. **Rules for Multiply Pos & Neg numbers.**
Same signs = _____ answer
Different signs = _____ answer
 8. **FOIL & Factoring:** 1. _____ the last numbers,
to get _____ number of answer.
2. _____ the last numbers, to
get _____ number of answer.
 9. **! Problems...** Start with the number, multiply backwards down to one.
These two are on the test:
4! = _____ 5! = _____

10. Integers are _____ numbers. They can be _____ or _____

11. The Right Triangles you should memorize are: _____, _____, _____ and _____, _____, _____

12. Formulas used on ASVAB

- Area of a Triangle: _____
- Volume of a Box is _____ Cubic means _____
- Area of a Rectangle is _____ Square means _____
- Perimeter of a Rectangle is _____
- Convert sq. feet into sq. yards _____

13. Measurement conversions used on ASVAB

- 12 inches = _____ 3 feet = _____
- 36 inches = _____ 2 pints = _____
- 4 quarts = _____ 16 ounces = _____

AR Formulas---Math Word Problems

Change a fraction to a percent: Divide the _____ number into _____ and then take the answer and multiply with the _____ number!

- 1. "What is the percent decrease" and "What is the percent increase" formula is

2. **What percent of** Formula is

3. **What is the Probability?** Formula is

4. **Proportions:** Find the _____ and then use it on the item they ask you about.

5. **Ratios**...when money is divided among several people. Take the big number and ÷ the _____

6. **Money in the bank interest rate:** Multiply the money times the _____ rate. You will then know the amount of interest they earn each _____

7. **The sum of two numbers is....** Follow steps:

- 1. Cut the _____ number in half. Write both halves on your paper.
- 2. Cut the _____ in half.
- 3. Now ADD half and SUBTRACT half on each side.

8. When two trains or air planes **travel in opposite directions**. One goes north; one goes south. Or one goes east, the other goes west; you should

Add their _____ together; and that will tell you how far apart they get every _____.

Your "Last Test" Try this AFTER you complete 3 final tests in back of book.

1. A scientist planted 120 seeds, and 90 sprouted. What percent of the seeds failed to sprout?
2. What is the average of $\frac{1}{4}$ and $\frac{1}{6}$?
3. A square measures 9 feet on each side. If each side of the square is increased by 3 feet, how many square feet are added to the area?
4. At a concert, floor tickets are \$20 each, and balcony seats are \$10 each. If 324 floor tickets were sold & the box office collected \$10,000, how many balcony tickets were sold?
5. In a city, taxicab fare is .80 cents for the first $\frac{1}{4}$ mile and .20 for additional $\frac{1}{4}$ mile. How far can you travel for \$5.00?
6. What is the value of $3a^2 - 2a + 5$, when $a = 4$?
7. When a certain number is divided by 15, the answer is 8, and the remainder is 7. What is the number?
8. Find the value of $(-3)^4 + (-2)^4 + (-1)^4$
9. The road-paving crew needs 8 barrels of water to spray every $\frac{1}{2}$ mile of road. How many barrels are needed to pave $3\frac{1}{2}$ miles of road?
10. A photograph is 8 inches long and 6 inches wide. If it is enlarged to 12 inches long, how many inches wide will it be?
11. What is the next number: 5, 2, 9, 6, _____?
12. If 500 people are at the movie theater, and 80% are adults. How many children are there?
13. A \$240 table is on sale for \$180. What is the percent decrease in price?
14. The scale on a map is 1 inch equals 50 miles. On the map, two cities are $2\frac{1}{2}$ inches apart. How many miles apart are the two cities?
15. The perimeter of a rectangle is 40 feet. If the length is 15 feet, 6 inches; what is the width?

16. The profits of \$72,000 were divided between the two owners in a ratio of 5:3. How much money did the majority owner receive?
17. What is the reciprocal of $\frac{5}{3}$? Write answer as a percent here _____.
18. If "a" is a negative number, and "ab" is a positive answer, then what is the sign of "b"?
- 19. Remaining items ARE on Pi-Cat & the real Asvab**
20. Jerry walked a dog from 6:40am to 7:30am one day. If he was paid at the rate of 6 per hour, how much did he earn that day?
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22. There are 9 red and 6 green marbles in a bag. A child reaches in the bag and randomly takes one marble. What is the probability of that child getting a green marble? **Write answer as decimal.*
23. If the population of a certain city increased 25% in two years, the new population was what percent of the old?
24. A printing press will print 6,000 copies in 20 minutes. A second press can print 15,000 in 60 minutes. How many more copies per minute will the faster press print than the slower press?
25. Debra and Ian shared in a 1,000,000 estate. Ian received 125,000, and Debra the rest. What fraction of the estate did Debra receive? *Don't solve this. The answer is $\frac{7}{8}$. Just remember, in case this question is on your test*
26. What is the area of a parallelogram if its length is $x+4$ and its height is $x+3$?
27. The sum of: $3x^3 - 2x + 8$, $2x^2 + 5$, and $x^3 + 2x^2 - 3x - 3$
28. If $\frac{x}{5} + 6 = -14$ then $x =$
29. What is the length of the diagonal of a rectangle with a length of 4 and width of 3?
30. $\frac{4}{3} \times \frac{3}{4} = 5K$, then $K = ?$
31. What is $5x$ times $(3x^2 - 5)$?
32. A stereo can be purchased on the installment plan with a down payment of \$35.00 and then 15 payments of \$22.50 each. If there is no sales tax, how much will the stereo cost if purchased on the installment plan?

33. $3a^2 + a^2$ added to a +6
34. $2^x = 32$ then $x =$
35. Solve for d: $b = cd$
36. What is the $\frac{12}{50}$ simplest form
37. If $4x + 12 = 0$, then $x =$
38. $x = -2$ and $y = 3$, who is the value of $2y - x$?
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42. If five people, each working 8 hours a day, can assemble 400 toys in a 5-day work week. What is the average number of toys assembled per hour, per person?
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45. How many 5-pound bags of apples can be made from 400 apples, each weighing $\frac{1}{4}$ pound?
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47. If a coat that usually sells for \$120 is on sale at 30% off, what is the sale price?
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Paragraph Comprehension Test 1

****1.** An important stage of personal time management is to take control of appointments. Determined by external obligation, appointments constitute interaction with other people and an agreed-on interface between your activities and those of others. Start with a simple appointment diary. List all appointments including regular and recurring ones. Now, be ruthless and eliminate the unnecessary. Eliminate the waste of your time.

Effectively managing your appointments allows you to:

- (A) spend more time with your subordinates
- (B) delegate responsibility to subordinates
- (C) make more efficient use of your time
- (D) attend only the most important meetings

****2.** The U.S. Congress consists of 100 senators and 435 representatives. Two senators are elected from each state. The number of representatives from each state is based on population, although each state has at least 1 representative. Senators serve 6-year terms & representatives serve 2-year terms.

According to this passage:

- (A) There are an equal number of senators and representatives.
- (B) The number of representatives is decided by a lottery.
- (C) It's possible for a state to have no representatives.
- (D) Senators and representatives have different term lengths

3. The success or failure of a conference lies largely with its leader. A leader's zest and enthusiasm must be real, apparent, and contagious. The leader is responsible for getting the ball rolling and making the attendees feel as if the meeting is theirs and its success depends on their participation. A good, thorough introduction helps establish the right climate.

A good title to this paragraph would be:

- (A) Lead by Example
- (B) The Importance of Proper Introductions
- (C) Leading a Successful Conference
- (D) Conference Participation Basics

4. Cloud seeding is accomplished by dropping particles of dry ice (solid carbon dioxide) from a plane onto super-cooled clouds. This process encourages condensation of water droplets in the clouds, which usually, but not always, results in rain or snow.

From this passage, it's reasonable to assume that:

- (A) Cloud seeding could be used to end a drought.
- (B) Cloud seeding is prohibitively expensive.
- (C) Cloud seeding is rarely used.
- (D) Cloud seeding can be accomplished by using regular ice.

****5.** The transistor, a small, solid-state device that can amplify sound, was invented in 1947. At first, it was too expensive and too difficult to produce to be used in cheap, mass-market products. By 1954, though, these cost and production problems had been overcome, and the first transistor radio was put on the market.

According to this passage:

- (A) There was no market for transistors before 1954.
- (B) When transistors could be produced cheaply and easily, the transistor radio was put on the market.
- (C) Transistors were invented in 1947 by the US Army
- (D) Transistors are still expensive to produce.

****6.** Surveys show that the average child under the age of 18 watches four hours of television per day. Although some of the programming may be educational, most isn't. Spending this much time watching television interferes with a child's ability to pursue other interests, such as reading, participating in sports, and playing with friends.

The author of this passage would agree that:

- (A) Television viewing should be restricted.
- (B) Parents who let their children watch this much TV are neglectful.
- (C) Reading, participating in sports, playing with friends, and watching television should all be given equal time.
- (D) Adults over 18 can watch as much television as they want.

7. High-school and college graduates attempting to find jobs should participate in mock job interviews. These mock interviews help students prepare for the types of questions they'll be asked, make them more comfortable with common interview formats, and help them critique their performance before facing a real interviewer. Because they're such a valuable aid, schools should organize mock job interviews for all of their graduating students.

The above passage states that mock job interviews:

- (A) frighten students
- (B) should be offered to the best students
- (C) help prepare students for real job interviews
- (D) should be organized by students

8. Scientists believe that a black hole is created when a supernova from a large star collapses on itself. This collapse causes a gravitational field that grows more and more intense until nothing can escape from its pull, not even light. It's thought that the universe may end as a black hole.

According to this passage:

- (A) A black hole emits light.
- (B) A supernova is a black hole.
- (C) The gravitational field of a black hole allows nothing to escape.
- (D) The universe was created by a black hole.

Turn Page

****9.** Military customs and courtesies are proven traditions that explain what should and shouldn't be done in many situations. They are acts of respect and courtesy when dealing with other people and have evolved as a result of the need for order, as well as the mutual respect and sense of fraternity that exists among military personnel. Military customs and courtesies go beyond basic politeness; they play an extremely important role in building morale, esprit de corps, discipline, and mission effectiveness. Customs and courtesies ensure proper respect for the chain of command and build the foundation for self-discipline.

According to this passage:

- (A) Military customs and courtesies are enforced by regulation.
- (B) Military customs and courtesies are just basic politeness.
- (C) Military customs and courtesies are the build self-discipline.
- (D) Military customs aren't applicable to the Coast Guard.

****10.** The Panama Canal is a ship canal that cuts through the Isthmus of Panama, connecting the Atlantic and Pacific oceans. Although several foreign companies tried to build the canal throughout the 19th century, none were successful. After the U.S. helped Panama revolt against Columbia, the U.S. was given rights to the land the canal occupied. The U.S. government finished the canal in 1914.

According to this passage:

- (A) Panama and Columbia fought a war over the Panama Canal.
- (B) The U.S. was given rights to the canal land.
- (C) Foreign companies built the canal before the U.S. stepped in.
- (D) Panama built the canal in 1914.

11. Extreme care must be exercised to ensure proper handling and cleaning of soiled U.S. flags. A torn flag may be mended, but a badly torn or tattered flag should be destroyed. When the flag is in such a condition that it's no longer a fitting emblem for display, destroy it in a dignified manner, preferably by burning.

According to this passage, torn flags should be:

- (A) mended
- (B) burned
- (C) destroyed
- (D) all of the above

Answers:

1. **(C)** Effective appointment management eliminates the waste of your time, as explained in the last sentence of the passage.
2. **(D)** The passage gives the numbers of senators & representatives, so Choice (A) is incorrect. The passage states that each state's population determines the number of representatives a state has, so Choice (B) is incorrect. As stated in the passage, each state has at least one representative, so Choice (C) is incorrect.

3. **(C)** Choice (A) is always a good philosophy but isn't pertinent to the main point of the passage. Choices (B) and (D) are sub points, which support the main point of the passage, which is how to lead a successful conference.

4. **(A)** One can assume that causing rain or snow would end a drought. Nothing in the passage has to do with expense, so Choice (B) is incorrect. The passage says nothing about how frequently the process is used, so Choice (C) is incorrect. The passage says that dry ice is used; regular ice is a different chemical, so Choice (D) is wrong.

5. **(B)** Products with transistors weren't widely sold before 1954 because of the expense and difficulty of production, not because markets didn't exist; so Choice (A) is incorrect. Choices (C) and (D) aren't supported in the passage. The passage says that the problem of being expensive & difficult to produce was solved by 1954.

6. **(A)** The author makes no reference to parents in the passage, so Choice (B) is incorrect. The author doesn't say all these interests require equal time, so Choice (C) is incorrect. The passage is about children under 18; no conclusion can be drawn about what the author thinks people over 18 should do, so Choice (D) is incorrect.

7. **(C)** The passage doesn't say anything about mock job interviews being frightening, so Choice (A) is wrong. The passage says that mock job interviews should be available to all students, so Choice (B) is wrong. The passage says that schools, not students, should organize mock interviews, so Choice (D) is incorrect.

8. **(C)** Nothing escapes from a black hole, including light, so Choice (A) is incorrect. A black hole occurs when a supernova collapses, but they're not the same thing, so Choice (B) is incorrect. The passage states that the universe might end as a black hole, not that a black hole created the universe, so Choice (D) is incorrect.

9. **(C)**. The passage makes no reference about the enforceability of customs and courtesies, so Choice (A) would be incorrect. According to the passage, military customs and courtesies go beyond basic politeness, making Choice (B) incorrect. Choice (D) is incorrect because the passage doesn't reference any individual military service. The last sentence contains the correct answer.

10. **(B)** The passage states that Panama revolted against Columbia, not that they fought over the canal, so Choice (A) is incorrect. The passage states that the foreign companies were unsuccessful in building the canal, so Choice (C) is incorrect. The United States, not Panama, built the canal, so Choice (D) is wrong.

11. **(D)** According to the passage a torn U.S. Flag can be mended, but a severely torn flag should be destroyed. The preferred method of destruction is by burning.

Questions 1, 2, 5, 6, 9, 10 ARE on real Asvab

Vocab Part 2

76. belligerent characteristic of an enemy or one eager to fight

77. vacuum an empty area or space

78. affluent having plenty of money or possessions of value

79. guile shrewdness as demonstrated by being skilled in deception

80. saga a story telling the adventures of a hero or a family

82. parry impede the movement of (an opponent or a ball)

83. scrutinize examine carefully for accuracy with the intent of verification

84. hapless deserving or inciting pity

85. squander spend thoughtlessly; throw away; waste

86. inflexible resistant to being bent

87. supple moving and bending with ease

88. engender make children

89. promulgate state or announce

90. vigil to watch; be on guard or observe

91. extol praise, glorify, or honor

93. antipathy a feeling of intense dislike

94. eccentric strange or unconventional behavior

95. tenacious stubbornly unyielding

97. eddy a miniature whirlpool or whirlwind resulting when the current of a fluid doubles back on itself

98. oblivious not awareness of

99. tenet a religious doctrine that is proclaimed as true without proof

100. philanthropist someone who makes charitable donations intended to increase human well-being

101. nocturnal belonging to or active during the night

102. dislodge remove or force from a position of dwelling previously occupied

103. palatable acceptable to the taste or mind

104. amplify increase the volume of

106. quirk twist or curve abruptly

107. tincture a substances that colors metals

108. lunge the act of moving forward suddenly

109. paraphrase express the same message in different words

110. illustrative clarifying by use of examples

111. meager small amount; not enough

112. portly nice way of saying 'fat'

113. principled based on or manifesting objectively defined standards of rightness or morality

114. tabloid newspaper with half-size pages

115. girth the distance around a person's body

116. foment try to stir up public opinion

117. assuage provide relief from pain

118. adamant impervious to pleas, persuasion, requests, reason

119. dregs sediment that has settled at the bottom of a liquid

120. miscreant a person without moral scruples

121. incubate grow under conditions that promote development
122. atoll an island consisting of a circular coral reef surrounding a lagoon
123. alcove a small recess opening off a larger room
124. reprieve postpone the punishment of a convicted criminal, such as an execution
125. ingratiate gain favor with somebody by deliberate efforts
126. porous full of pores or vessels or holes
127. negligible so small as to be meaningless; insignificant
128. minion a servile or fawning dependant
129. pronouncement an authoritative declaration
130. sedentary sitting or little activity
131. fiasco a sudden and violent collapse
132. domineering tending to domineer
134. predestined established or prearranged
135. spry moving quickly and lightly
136. nuance a subtle difference in meaning or opinion or attitude
137. illegible (of handwriting, print, etc.) not legible
138. putter do random, unplanned work or activities or spend time idly
139. squeamish excessively fastidious and easily disgusted
140. impugn attack as false or wrong
141. zealot a fervent and even militant proponent of something
142. trounce come out better in a competition, race, or conflict
143. iota a tiny or scarcely detectable amount
144. intransigent impervious to pleas, persuasion, requests, reason
145. cacophony loud confusing disagreeable sounds
146. ostracize expel from a community or group
147. purview the range of interest or activity that can be anticipated
148. lackadaisical idle or daydreaming
149. nemesis something causing misery or death
150. leery openly distrustful and unwilling to confide