Geometry Formulas

Circle: $C = 2\pi r$ or $C = \pi d$ Rectangle: $A = L \cdot W$

$A = \pi r^2$

Triangle: $A = \frac{1}{2} b \cdot h$ Parallelogram: $A = b \cdot h$

Rectangular Solid: $V = L \cdot W \cdot H$ Cylinder: $V = \pi r^2 h$

Cone: $V = \frac{1}{3}\pi r^2 h$ Sphere: $V = \frac{4}{3}\pi r^3$

Square-Based Pyramid: $V = \frac{1}{3}s^2 h$

ANSWERS:

1.) A) Round 7.5856 to the nearest tenth. 1a) _____

b) Write "Six and seventy-eight hundredths" in standard form. 1b) _____

2.) Divide and write your answer in **simplest form**: $8\frac{1}{3} \div 4$ 2) _____

3.) Write $\frac{3}{8}$ as a percent. 3) _____

4.) Multiply: 0.58×0.23 4) _____

5.) 38 is what percent of 190?

5)_____

6.) A copy machine can print 24 copies in 3 minutes, How many copies can be printed in 36 minutes?

6)_____

7.) Write 8 % as a fraction or mixed number in **simplest form**.

7)_____

8.) Add: $-\frac{2}{5}+\frac{1}{7}$ and simplify.

8)_____

9.) A rectangle has a length 4.54 feet, and width 4.9 feet. Find its perimeter.(answers must have units)

9)_____

10.) Write the numbers in order from smallest to largest: $0.\overline{8}$, 0.08, $\frac{8}{10}$, 0.804

10)_____

_____

11.) Subtract: 19.37 – 12.106

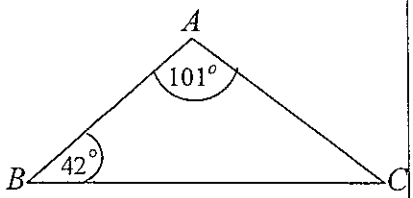
11)_____

12.) Perform the operation: $-12 \div 6 \times 5$

12)_____

For Questions 13 and 14 use the Triangle to the right:

13.) Find the missing angle. (answer must have units)



13)_____

14.) Is $\angle C$ acute, obtuse, or a right angle?

14)_____

15)_____

15.) Write in **simplest form**: $32 \times 10 \div 0.01$

16.) The sales tax on a rare baseball card is \$56. (answers must have units)

a) Find the purchase price of baseball card (before tax) if the sales tax is 7%.

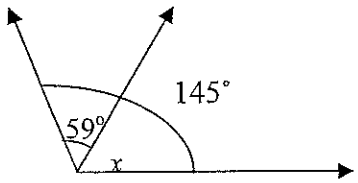
16a)_____

16b)_____

b) Find the total price of the baseball card.

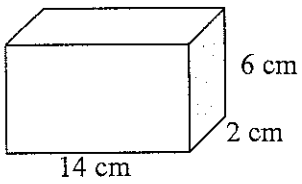
17)_____

17.) Find $m\angle x$ in the diagram below. (answers must have units)

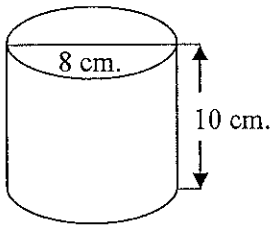


18)_____

18.) Find the volume: (answer must have units)

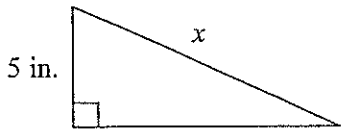


19.) Find the volume (leave answer in terms of π, write the units).



19)_____

20.) Use the following triangle (answers must have units)



12 in

a) Find the missing side.

20a)_____

b) Find the area.

20b)_____

21.) Multiply and reduce, if possible: $-4\frac{4}{5}\cdot\left(-3\frac{1}{3}\right)$

21)_____

22.) A circle has a radius of 4 in. (leave answers in terms of π, write the units)

a) Find the Area

22a)_____

22b)_____

b) Find the Circumference

23)_____

24)_____

Refer to the following data for questions 23 – 25: 21, 32, 11, 14, 12, 11

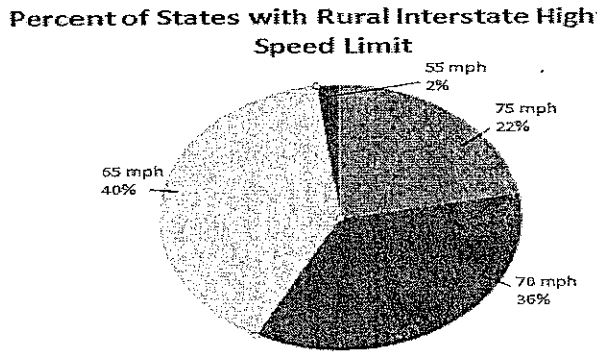
23.) Find the mean:

24.) Find the median:

25)_____

25.) Find the mode:

26.) The circle graph below shows the percent of the 50 state with various rural interstate highway speed limits in 2000.



a) What percent had a rural interstate highway speed limit of 65mph?

b) How many states had a rural interstate highway speed limit of 65mph? (Do not give a percentage answer!)

27.) Simplify: $-(7x-2y)-4(3x+5y)$

28.) Fill in the blank with < or >: $0.\overline{6}$ ____ 0.6666

29.) Given $\left\{-\frac{1}{3},\ \sqrt{5},\ \pi,\ \frac{2}{7},-3\right\}$, list the numbers that belong to the set of:

a.) Integers

b.) Rational numbers

26a)_____

26b)_____

27)_____

28)_____

29a)_____

29b)_____

30.) Perform the indicated operation: $-23-23$

30)_____

31.) Simplify and reduce: $\left(\frac{4}{5}\right)^2 - 1\frac{1}{2}\cdot\frac{2}{5}$

31)_____

32.) Simplify using order of operations and **reduce** if possible: $\dfrac{10-(-3)+|2-5|}{1-3\cdot 3}$

32)_____

33.) Is $\frac{2}{6}=\frac{3}{9}$ a true proportion? If not, why?

33)_____

34.) Decide whether $x = 3$ is a solution to the following equation:

$$-4x-12 = 9(x-4)$$

34)_____

35.) Rose had \$48 in her checking account. If she writes a check for \$14.54 and then another check for \$21.05, how much money does she have left in her account?.

35)_____