Printable 6th grade math test

Name _____   Date:_____

Solve the following problems

1.

In the equation below, what is the value of x
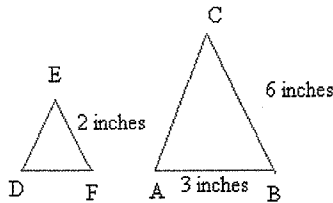
$20 = x + (2 \times 8) - 6$

2.

Sarah has 30 pencils. Her friend Sylvia has k less pencils. Which expression show the number of pencils Sylvia has?

A. 30 + k   **B.** k - 30   **C.** 30 - k   **D.** 30 - 2k

3.

Triangle ABC is similar to triangle DEF

What is the length of DE?

A. 2 inches   **B.** 1 inch   **C.** 3 inches   **D.** 1.5 inches

4.

What is the value of the expression below?

5^3

A. 15   **B.** 8   **C.** 25   **D.** 125

5.

Use the following list to find the average or mean, the median, the mode, and the range

10, 15, 5, 8, 6, 6, 2

Average = _____

Median = _____

Mode = _____

range = _____

6.

-5 - 8 = _____

5 - 8 = _____
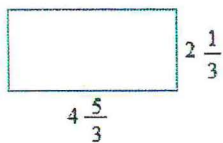
-8 - 5 = _____

7.

Draw a coordinate system in the space below and then plot (2,5) and (-4, 2)

8.

Find the perimeter and area of the rectangle below:

$2\frac{1}{3}$

$4\frac{5}{3}$

Perimeter = _____ units

Area = _____ square units

9.

Get a die and throw it.

The different outcomes are _____

Write the probability of getting an even number _____

Write the probability of getting an odd number _____

Write the probability of getting a prime number _____

10.

Add 3/5 and 2/7 _____

11.

For the number 76.2345, the value of the digit 4 is

A. 4 tens   B. 4 tenths   C. 4 thousandths   D. 4 ten-thousandths

12.

If 9450 / x equals 21, what is x? _____

13.

Put the following numbers, in order from least to greatest

-1/4, 7/4, 0.90, -2/4, 0.20, 3/4, 1.50, -0.50,

_____, _____, _____, _____, _____, _____, _____, _____

14.

a. You want to save money to buy a bike. You start with 50 dollars and you save 4 dollars each day. Which expression show the amount of money you have after x days?

50 - 4x

4x - 50

4x + 50

50 + 4 × 10

b. How much money do you have after 20 days?

A. 120 dollars   B. 130 dollars   C. 110 dollars   D. 200 dollars

15.

a. Write down all composite numbers bigger than 10 and smaller than 20 (Hint: there are 5 of them

_____, _____, _____, _____, _____,

Pick a composite number and write down all the factors in the space below

b. Write down all prime numbers bigger than 10 and smaller than 20 (Hint: there are 4 of them

_____, _____, _____, _____

16.

How many lines of symmetry does a square have? _____

17.

The diameter of a circle is 8 inches

The perimeter and area are :

A. P = 4 pi and A = 12 pi   B. P = 16 pi and A = 8 pi   C. P = 8 pi and A = 16 pi   D. P = 16 pi and A = 4 pi

18.

John and Peter have 40 dollars together. If John has 4 times more money than Peter. How much money does each have? (Hint: try trial and error)

John has _____ dollars

Peter has _____ dollars

19.

A machine produces 5000 items in 6 minutes. Which proportion **cannot** be used to find how many minutes it takes to produce 15000 items?

A. 5000 / 6 = 15000 / x   B. 5000 / 6 = x / 15000   C. 6 / x = 5000 / 15000   D. 6 / 5000 = x / 15000

20.

You go to the restaurant and buy food for 120 dollars. The restaurant requires a 15% tip. What is your total?

21.

In a map, 1 inch represents 30 miles. How many inches will show a distance of 120 miles? _____

22.

A box contains 6 blue marbles, 4 red marbles, and 10 red marbles.

What is the probability of choosing a red marble?

A. 4 / 20   B. 3 / 20   C. 6 / 20   D. 4 / 16

Which color is less likely to be picked? _____

23.

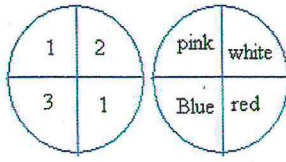a. Write down a brief definition of congruence

Make a drawing to show two shapes that are congruent

b. Write down a brief definition of similarity

Make a drawing to show two shapes that are similar

24.

Spin each spinner once and list all possible outcomes (Hint: one outcome is 2 and white)

What is the probabibilty of getting 1 and red? _____

25.

Evaluate the numerical expression below:

$(8 + 2)[(7 - 3)\times 5]$

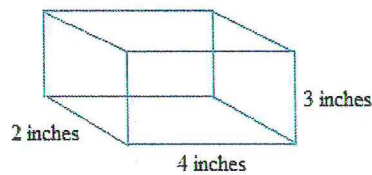A. 100   B. 150   C. 300   D. 200

26.

What is the sum of the angle in a pentagon? (Hint: divide the pentagon into triangles. A triangle is 180 degrees)

27

a. How many inches are in 3 and 1/2 feet?

b. How many meters are in 500 centimeters?

28.

What is the volume and surface area of the following rectangular prism?

Volume = _____

Surface area = _____

29.

a. The shape of a swimming pool is more like a

A. Rectangular prism   B. Circle   C. pyramid   D. Sphere

b. Look up a soccer field online. Then, identify 4 geometric shapes

_____, _____, _____, _____

30.

You go shopping and you see a sign that says." Buy 1 T-shirt and get 20% off on the second T-shirt. The T-shirt cost 30 dollars and you buy 2 T-shirts. What is your total? _____