MyFunScience
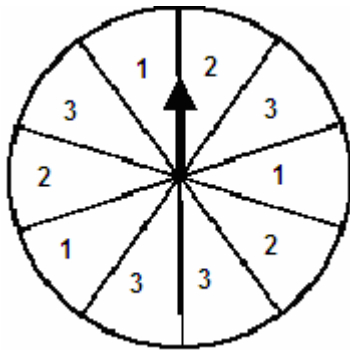## Middle School Math Placement Exam

1) What is the correct way to write 9 x 9 x 9 in exponential form?

    a) 3^9
    b) 18
    c) 9^3
    d) 81

2) Which comparison is true?

    a) 148,310 > 148,301
    b) 148,301 > 148,310
    c) 418,310 < 418,301
    d) 418,301 > 481,301

3) Solve for x
    $0.015 \div 5 = x$

    a) 3
    b) 0.3
    c) 0.03
    d) 0.003

4) Identify the complete, correct list of the factors of 18

    a) 1, 2, 9, 18
    b) 1, 3, 6, 18
    c) 1, 2, 3, 6, 9,18
    d) 1, 2, 3, 4, 6, 9, 18

5) What is $2\frac{5}{7}$ as an improper fraction?

    a) $\frac{17}{5}$

    b) $\frac{19}{7}$

    c) $1\frac{3}{5}$

    d) $2\frac{5}{7}$

6) How is $\frac{17}{3}$ written as a mixed number?

    a) $5\frac{3}{2}$

    b) $5\frac{6}{10}$

    c) $5\frac{2}{3}$

    d) $4\frac{1}{3}$

7) What is the best estimate for 14.6 x 3.9? Use compatible numbers

    a) 55
    b) 60
    c) 42
    d) 56

8) What is the mode of the numbers 5, 5, 7, 6, 4, 3, 5, 7, 6?

    a) 7
    b) 6
    c) 5
    d) 4

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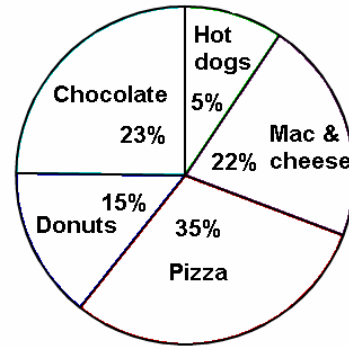|	
9) Betsy had $\frac{3}{4}$ of her book completed. What decimal is this equal to? a) 0.75 b) 7.5 c) 0.075 d) 0.0075	10) What is the correct order from least to greatest for the following numbers: 33.49, 29.5, 29.84, and 33 a) 33.49, 33, 29.84, and 29.5 b) 29.5, 29.84, 33.49, and 33 c) 29.84, 29.5, 33, and 33.49 d) 29.5, 29.84, 33, and 33.49
11) Jamal got an 87%, 62%, 95%, and an 89% on his last four math tests. What is his average percentage? a) 81.33% b) 83.25% c) 85% d) 85.25%	12) According to the bar graph, approximately how many students like Country *and* Classical music? Favorite Kinds of Music Popular, Rap, Other, Country, Punk, Classical a) 32 b) 20 c) 12 d) 10
13) What is the correct way to write 7^5 in standard form? A) 16807 b) 35 c) 49 d) 2401	14) Estimate the sum of 65.2 + 12.7 to the nearest whole number a) 75 b) 76 c) 78 d) 79
15) Keri left Baltimore at 8:45 a.m. and arrived in Philadelphia at 10:39 a.m. How long did the entire trip take? a) 1 hour and 45 minutes b) 1 hour and 54 minutes c) 2 hours and 6 minutes d) 2 hours	16) Candace is going to order 10 pizzas for her pool party. Each pizza costs $8.95. How much does it cost to buy 10 pizzas? a) $895.00 b) $0.89 c) $895.50 d) $89.50

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17) What is the probability that the arrow will land on a three?

a) $\dfrac{2}{10}$

b) $\dfrac{3}{10}$

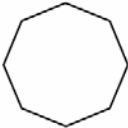c) $\dfrac{4}{10}$

d) $\dfrac{5}{10}$

18) Carter took a survey of students at his school to determine what their favorite foods were. The results are on the graph below

Favorite Foods of Students

What is the percent of students who chose hot dogs or pizza as their favorite foods?

a) 5%
b) 35%
c) 40%
d) 50%

19) is an example of a(n)

a) hexagon
b) octagon
c) pentagon
d) nonagon

20) Harry and Steve have 8.5 pieces of cake left over from their party and they are going to divide it evenly. How many pieces does each boy get?

a) 42.5
b) 4.025
c) 42.5
d) 4.25

21) What place value does 2 hold in the number 65,421?

a) ones
b) tens
c) hundreds
d) thousands

22) What is $\dfrac{1}{3}$ of 9?

a) 5
b) 4
c) 3
d) 2

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23) Find the greatest common factor (GCF) of 28 and 30 a) 1 b) 2 c) 5 d) 6	24) What is the correct word form of 7.41? a) seven and forty-one hundredths b) seven and forty-one thousandths c) seven point forty-one d) seven and forty-one tenths
25) What is the correct way to write 3^3 in expanded form? a) 9 b) 3 x 3 x 3 c) 3 x 3 d) 27	26) Anthony answered 18 out of 25 questions correctly. What percentage of the questions did he answer correctly? a) 72% b) 18% c) 7% d) 75%
27) When Jacob checked his email, 5/18 of the emails were from friends, 5/24 was junk mail, and 1/4 were from his family. What fraction of the emails were from his family and friends? Reduce to lowest terms a) $1\frac{1}{12}$ b) $\frac{11}{24}$ c) $\frac{1}{6}$ d) $\frac{19}{36}$	28) In 2008, the average rainfall in Seattle, Washington was 1.9 inches in September, 3.3 inches in October and 5.7 inches in November. Use rounding to estimate how many inches of rainfall fell in total during those months. a) 11 inches b) 10 inches c) 9 inches d) 4 inches
29) Identify the prime factorization for 42 a) 6 x 7 b) 2×3^2 c) 7 x 3 x 2 d) 2 x 21	30) What are the missing two numbers in the pattern 15, 10, 12, 7, 9, __, __, 1 a) 4, 9 b) 4, 6 c) 5, 0 d) 11, 6

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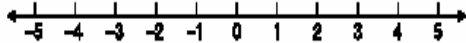31) Order the following numbers from least to greatest: $\frac{1}{2}$, 0.4, $\frac{1}{8}$, 0.22

a) $\frac{1}{2}$, 0.4, $\frac{1}{8}$, 0.22

b) 0.22, 0.4, $\frac{1}{8}$, $\frac{1}{2}$

c) $\frac{1}{2}$, $\frac{1}{8}$, 0.4, 0.22

d) $\frac{1}{8}$, 0.22, 0.4, $\frac{1}{2}$

32) A triangle has angle measures 40° and 60°. What is the measure of the missing angle?

Hint: A triangle = 180°

a) 150°
b) 100°
c) 80°
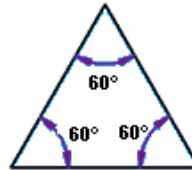d) 70°

33) Use the line below to help answer the question.

What is the next number in the pattern:
-5, -4, -2 , 1

a) 4
b) 5
c) 6
d) 7

34)

is a triangle that has angles and sides that are all the same. It is an example of a(n)

a) isosceles triangle
b) right triangle
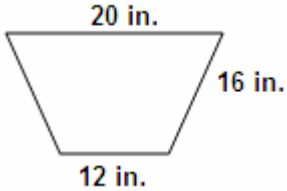c) acute triangle
d) equilateral triangle

35) Solve for x

100 x 7.981 = x

a) 0.07981
b) 798.1
c) 7,981
d) 79.81

36) Solve for m

$$\frac{4}{9} + m = \frac{5}{6}$$

a) $1\frac{5}{18}$

b) $\frac{23}{18}$

c) $\frac{11}{18}$

d) $\frac{7}{18}$

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37) What percent is the same as $\frac{3}{4}$?
 	
    a) 60%
    b) 65%
    c) 75%
    d) 50%
	38) What is the probability of getting tails and tails when 2 coins are flipped at the same time?
	
	    a) $\frac{1}{2}$
	
	    b) $\frac{1}{4}$
	
	    c) $\frac{2}{4}$
	
	    d) $\frac{3}{4}$

39) Solve for p
 	
$$\frac{18}{25} - \frac{3}{25} = p$$
 	
Reduce to lowest terms
 	
    a) $\frac{15}{25}$
 	
    b) $\frac{1}{5}$
 	
    c) $\frac{3}{5}$
 	
    d) $\frac{3}{25}$
	40) Which expression best demonstrates the distributive property for the equation:
	5 x (4 + 7) = ____
	
	    a) (5 x 4) + (5 x 7)
	    b) (5 x 4) + 7
	    c) (5 + 4) x (5 + 7)
	    d) (5 x 4) x (5 x 7)

41) What is the ratio of stars to circles? Remember to express the ratio in lowest terms
 	
☆☆☆☆☆ ◯◯
 	
    a) 1:2
    b) 4:6
    c) 2:1
    d) 2:4
	42) What is the perimeter of the polygon?
	
	20 in.
	16 in.
	12 in.
	
	    a) 64 in.
	    b) 48 in.
	    c) 16 in.
	    d) 60 in.

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43) Solve for x

0.415 - 0.2 = x

a) 0.115
b) 0.235
c) 0.615
d) 0.215

44)

J   K

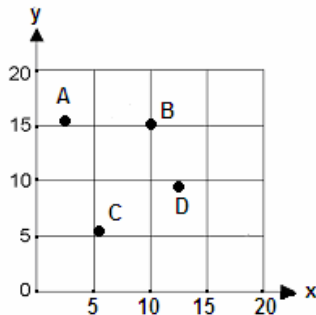is an example of a _____.

a) line segment
b) ray
c) point
d) parallel

45) What is the radius of a circle that has a diameter of 8 cm

a) 16 cm
b) 12 cm
c) 8 cm
d) 4 cm

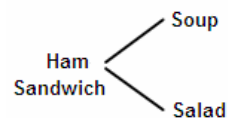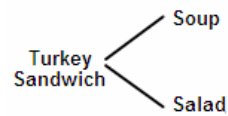46) An angle with a measurement of 20° is classified as a(n)

a) obtuse angle
b) straight angle
c) acute angle
d) right angle

47) Which point on the graph has the coordinates (13, 9)?

a) point A
b) point B
c) point C
d) point D

48) If you have a choice of two sandwiches with either soup or a salad. Based on the tree diagram below, how many choices are possible?
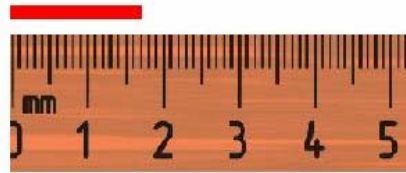

Turkey Sandwich — Soup / Salad

Ham Sandwich — Soup / Salad

a) 4
b) 5
c) 6
d) 7

49) Identify the list of numbers that has all prime numbers.

      a) 1, 3, 5, 9
      b) 1, 3, 5, 7
      c) 2, 4, 6, 8
      d) 1, 2, 3, 4

50) What is the length of the line in millimeters?

      a) 10 mm
      b) 15 mm
      c) 17 mm
      d) 20 mm

51) Solve $6 \frac{1}{6} \div \frac{2}{3}$

What is the quotient, in lowest terms?

      a) $9\frac{1}{4}$

      b) $4\frac{1}{9}$

      c) $8\frac{1}{4}$

      d) $1\frac{4}{9}$

52) 12 cookies were plain sugar cookies and 4 had icing on them. What is the ratio of iced cookies to plain cookies, in lowest terms?

      a) 12:4
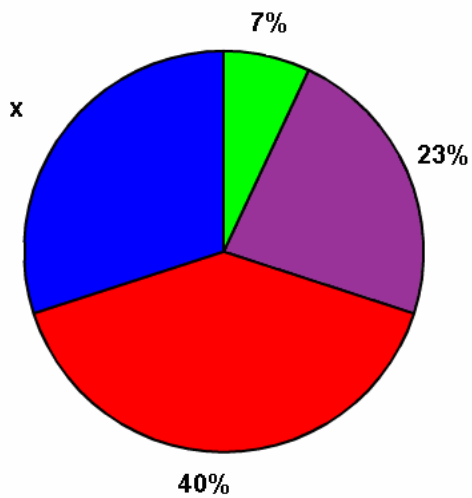   b) 5:12
      c) 3:1
      d) 1:3

53) $\frac{8}{12}$ of the donuts were left. Jessica and her friend then ate $\frac{4}{12}$ of the donuts. How many donuts remained? Reduce to lowest terms.

      a) $\frac{4}{12}$

      b) $\frac{2}{3}$

      c) $\frac{1}{3}$

      d) $\frac{1}{2}$

54) What equation best matches this situation? After Sarah paid $11.99 for her new mystery book, she had $5.35 left. Which expression shows how to find how much money Sarah started with?
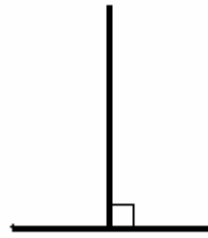
      a) $5.35 + x = $11.99
      b) $11.99 + x = $5.35
      c) x - $11.99 = $5.35
      d) $11.99 - $5.35 = x

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55) Using the given chart, find the percentage of **x**

7%

x

23%

40%

a) 30%
b) 20%
c) 110%
d) 29%

56)

is an example of

a) parallel lines
b) intersecting
c) straight lines
d) perpendicular lines

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