

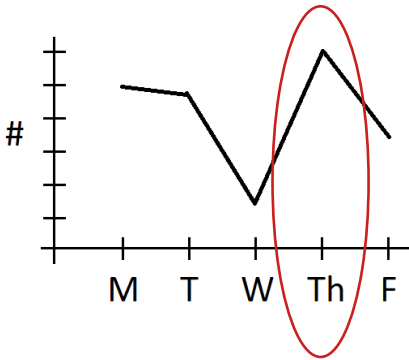
Name: _____

1) Fill in the blank. $81,540 = 80,000 + \underline{1,000} + 500 + 40$

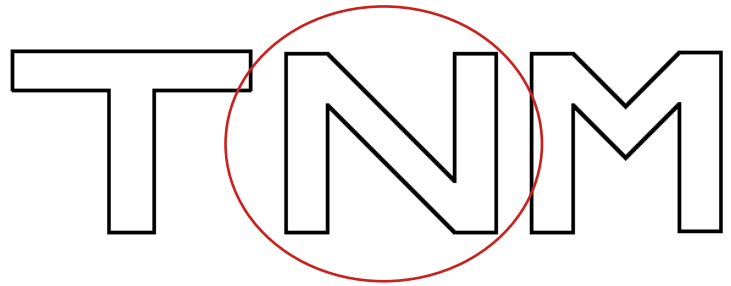
2) This morning the temperature was -8°C . Now it is 15°C . How many degrees did the temperature rise?

$$15 - (-8) = 15 + 8 = 23 \text{ degrees}$$

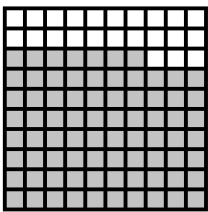
3) On which day were the most balloons sold?



4) Circle the letter with rotational symmetry.



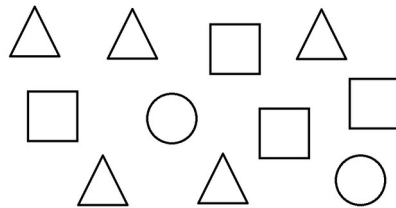
5) What fraction of the square is shaded?



$$\frac{77}{100}$$

6) What is the ratio of squares to triangles?

$$4:5$$



7) Which number is a factor of all numbers?

1

8) What number is halfway between 8 and 10?

9

9) Simplify the expression.

$$x + x + x + x + x = 5x$$

10) Solve.

$$5 + (-7) = -2$$

Name: _____

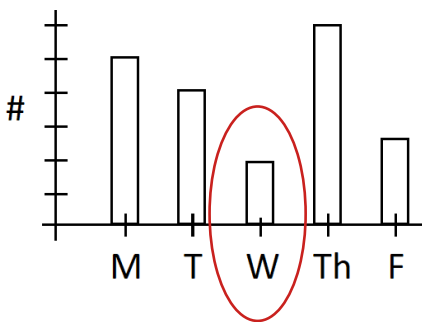
1) Write three ways to show 28 divided by 7 equals 4.

$$28 \div 7 = 4 \quad \frac{28}{7} = 4 \quad 7 \overline{)28} \begin{array}{r} 4 \\ \end{array}$$

2) Our soccer team won 7 out of 10 games. What fraction did we win?

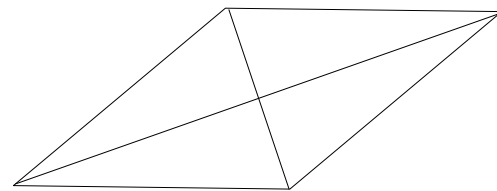
$$\frac{7}{10}$$

3) On which day were the fewest balloons sold?



4) Does the quadrilateral have congruent diagonals?

no



5) Write as an improper fraction.

$$3 \frac{5}{8} = \frac{24}{8} + \frac{5}{8} = \frac{29}{8}$$

6) Complete the equivalent ratio.

$$4 : 9 \quad \begin{array}{l} 4 \times 5 = 20 \\ 9 \times 5 = 45 \end{array}$$

20 : 45

7) How many multiples of 3 are there between 1 and 20?

3, 6, 9, 12, 15, 18
6 multiples

8) What number is halfway between 24 and 36?

$$(24 + 36) \div 2 = 30$$

9) Simplify the expression.

$$6y + 3y - y = 8y$$

10) Solve.

$$-8 - (-3) = -8 + 3 = -5$$

Name: _____

1) Use the numbers 28, 12, and 40 to write two addition and two subtraction facts.

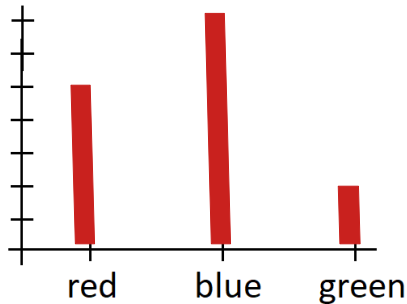
$$28 + 12 = 40 \quad 12 + 28 = 40 \quad 40 - 12 = 28 \quad 40 - 28 = 12$$

2) Of the 48 animals in the pen, 28 of them are chickens and the rest are pigs. What is the ratio of chickens to pigs? Simplify your answer.

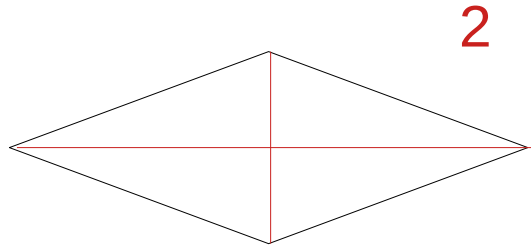
$$\text{Pigs} = 48 - 28 = 20 \quad 28:20 \quad 7:5$$

3) Plot the data to make a bar graph.

color	#
red	5
blue	7
green	2



4) How many lines of symmetry does a rhombus have?



5) Write as a mixed number.

$$\frac{60}{7}$$

$$8 \frac{4}{7}$$

6) Complete the equivalent ratio.

$$5 : 11 = 45 : \boxed{99}$$

7) Write the multiples of 7 between 1 and 50.

$$7, 14, 21, 28, 35, 42, 49$$

8) What is the average of 95 and 17?

$$(95 + 17) \div 2 = 56$$

9) Write the expression: five times the quantity three y plus 7.

$$5(3y + 7)$$

10) Solve.

$$\begin{array}{r} 121 \\ 5197 \\ 684 \\ + 1360 \\ \hline 7241 \end{array}$$

Name: _____

1) Use the numbers 15, 7, and 105 to write two multiplication and two division facts.

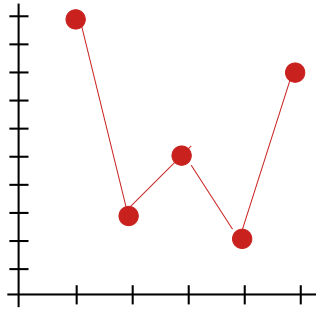
$$15 \times 7 = 105 \quad 7 \times 15 = 105 \quad 105 \div 15 = 7 \quad 105 \div 7 = 15$$

2) If I can knit 2.5 beanies in a day, how many can I make in two weeks?

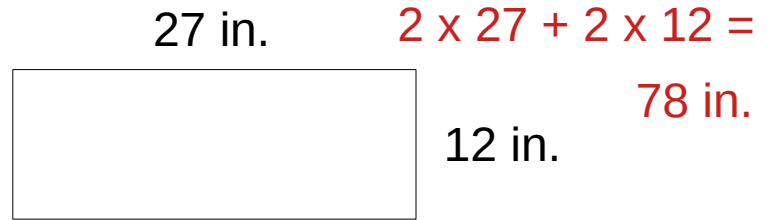
$$2.5 \times 14 = 35 \text{ beanies}$$

3) Plot the data to make a line graph.

x	y
1	10
2	3
3	5
4	2
5	8



4) What is the perimeter of this rectangle?



5) What number is half of 84?

42

6) Complete the equivalent ratio.

42 to 36 = 7 to 6

7) Circle all the multiples of 6.

10 12 14 16 18 20
22 24 26 28 30 32

8) What is the mean of 2, 9, and 19?

$$(2 + 9 + 19) \div 3 = 10$$

9) Write the expression: the quantity $a + 3$, squared.

$$(a + 3)^2$$

10) Solve.

$$\begin{array}{r} 49 \\ 6501 \\ - 2487 \\ \hline 4014 \end{array}$$

Name: _____

1) In **4,137,640**, what number is in the hundred thousands place? **1**

2) A rectangle has a length to width ratio of 7:4. If the width is 12 cm, what is the area?

$$\text{length} = 7 \times 3 = 21 \text{ cm} \quad \text{area} = 21 \times 12 = 252 \text{ cm}^2$$

3) The fabric costs \$8 per yard. Complete the table.

Length (yd)	1	2	3	4	5
Cost (\$)	8	16	24	32	40

4) What is the perimeter of a regular octagon if each side is 9 cm?

$$8 \times 9 \text{ cm} = 72 \text{ cm}$$

5) Convert the fraction into a decimal.

$$\frac{2}{5} \quad 0.4$$

6) Write the ratio in simplest form.

$$7 : 28 \\ 1 : 4$$

7) Find the least common multiple (LCM) of 3 and 4.

$$12$$

8) What is the average of 3, 7, 13, and 25?

$$(3 + 7 + 13 + 25) \div 4 \\ = 12$$

9) Write the expression: the quotient of the quantity n minus 2 divided by 9.

$$(n-2) \div 9$$

10) Solve.

$$20^3 = 800$$

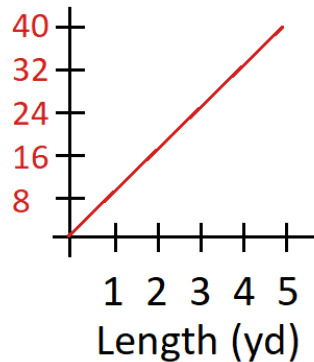
Name: _____

1) In which place is the digit **4** in the number **1,602,413**? **hundreds**

2) If I can paint $\frac{4}{5}$ square meters with $\frac{1}{3}$ liter of paint, how much could I paint with a full liter?

$$\frac{4}{5} \times 3 = \frac{12}{5} = 2 \frac{2}{5} = 2.4 \text{ m}^2$$

3) The fabric costs \$8 per yard. Fill in the graph.



4) The perimeter of a square is 64 inches. What is its area?

$$\begin{aligned} \text{length} &= 64 \text{ in} \div 4 = 16 \text{ in} \\ \text{area} &= 16 \times 16 = 256 \text{ in}^2 \end{aligned}$$

5) Convert the decimal into a fraction.

$$0.17 = \frac{17}{100}$$

6) Write the ratio in simplest form.

$$\begin{aligned} 64 : 12 \\ 16 : 3 \end{aligned}$$

7) Find the least common multiple (LCM) of 6 and 9.

$$18$$

8) What is the mean of 6, 9, 11, 12, and 12?

$$\begin{aligned} (6 + 9 + 11 + 12 + 12) \div 5 \\ = 10 \end{aligned}$$

9) Use the distributive property to multiply:

$$4(2x+3) = 8x + 12$$

10) Solve.

$$718 \cdot 59 = 42362$$

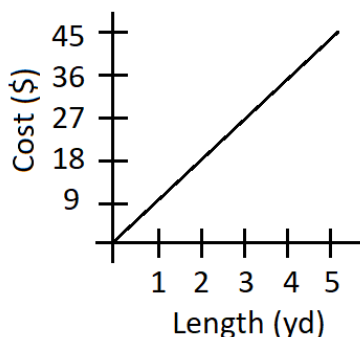
Name: _____

1) In 7,596,128, what is the value of the digit 9? **90,000**

2) I have $\frac{8}{11}$ lb of peanuts. My sister has $\frac{3}{4}$ of the amount that I have. How many pounds of peanuts does my sister have?

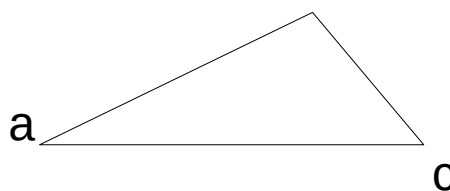
$$\frac{3}{\cancel{4}} \times \frac{\cancel{8}}{11} = \frac{6}{11} \text{ lb}$$

3) The plot shows the cost of fabric as a function of length. How many yards can I get for \$36?



4 yards

4) Which angle is obtuse in this triangle?



b

$\angle c$
 $\angle acb$
or
 $\angle bca$

5) Convert the fraction into a decimal.

$$\frac{31}{50} \quad \mathbf{0.62}$$

6) Write the ratio in simplest form.

$$8 : 52 : 36$$
$$\mathbf{2 : 13 : 9}$$

7) What is the least common multiple (LCM) of 13 and 7?

91

(since 13 and 7 are both prime numbers, multiple together.)

8) What is the median of the following list of numbers?

1 7 **9** 23 101

9) Use the distributive property to multiply:

$$9(y^2 + 3y - 5) = \mathbf{9y^2 + 27y - 45}$$

10) Solve.

$$\begin{array}{r} 73 \overline{) 10001} \\ \underline{73} \\ 270 \\ \underline{219} \\ 511 \end{array}$$



Name: _____

1) In **98,372,104**, what number is in the millions place? **8**

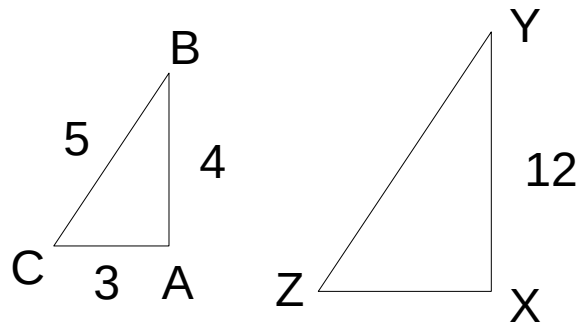
2) I bought $\frac{4}{5}$ kilograms of plums. That was $\frac{1}{4}$ of the amount my friend bought.

How many kilograms of plums did my friend buy? $\frac{4}{5} \times 4 = \frac{16}{5} = 3\frac{1}{5} = 3.2 \text{ kg}$

3) A train travels at 70 km per hour. Complete the table.

Time (hours)	Distance (km)
1	70
2	140
3	210
4	280
5	350

4) Triangle XYZ is an enlarged version of triangle ABC. How long is edge YZ?



15

5) Convert the decimal into a fraction and simplify.

$$0.25 = \frac{25}{100} = \frac{1}{4}$$

6) Complete the equivalent ratio.

$$7 : 6 = \boxed{126} : 108$$

7) Find 3 common multiples of 4 and 10.

20, 40, 60

8) What is the median of the following list of numbers?

23 31 32 **39** 40 51 65

9) Find the missing number.

$$\boxed{20} + 30 = 50$$

10) Solve.

$$70(65 + 28) - 519 \div 3 =$$

$$70(93) - 173 =$$
$$6510 - 173 = 6337$$



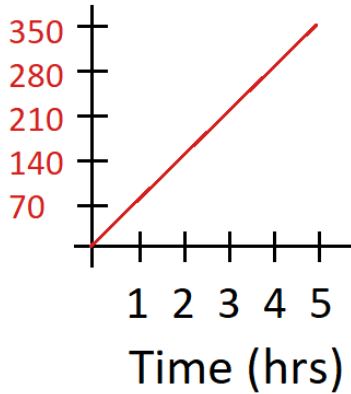
Name: _____

1) In the number, **192,837,465,000**, what digit is in the millions place? **7**

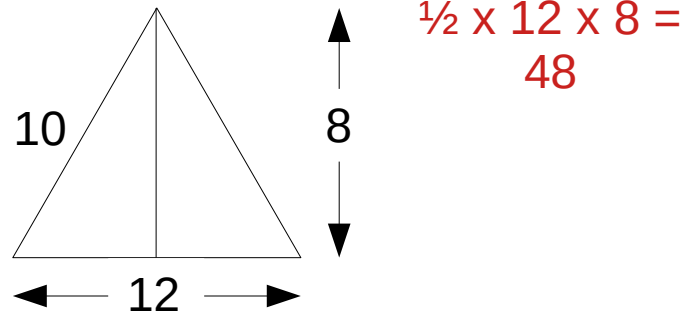
2) I walk to the park at 3 miles per hour. If it takes me 20 minutes to get there, how far away is the park?

$$20 \text{ min} = \frac{1}{3} \text{ hour} \quad 3 \times \frac{1}{3} = 1 \text{ mile}$$

3) A train travels at 70 km per hour. Fill in the graph.



4) What is the area of this triangle?



5) Convert the fraction into a decimal.

$$\frac{5}{8} \quad \begin{array}{r} 0.625 \\ 8 \overline{)5.000} \\ \underline{-48} \\ 20 \\ \underline{-16} \\ 40 \\ \underline{-40} \\ 0 \end{array}$$

6) Complete the equivalent ratio.

$$3 : 9 : 7$$

24	: 72 :	56
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7) Write all the factors of 12.

1, 2, 3, 4, 6, 12

8) What is the median of the following list of numbers?

9 5 1 2 8 7 2
1 2 2 **5** 7 8 9

9) Find the missing number.

175

 - 75 = 100

10) Solve.

$$7^2 + \sqrt{81} \div 3 =$$
$$49 + 9 \div 3 =$$
$$49 + 3 = 52$$

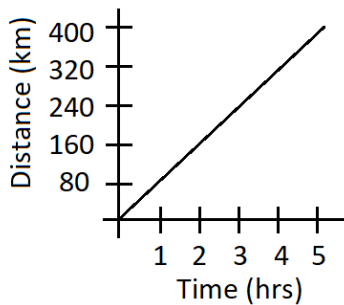
Name: _____

1) In **23.718**, what digit is in the tenths place? **7**

2) My 3 siblings and I each bought gumballs. The average number of gumballs we bought was 3.5. How many did we buy all together?

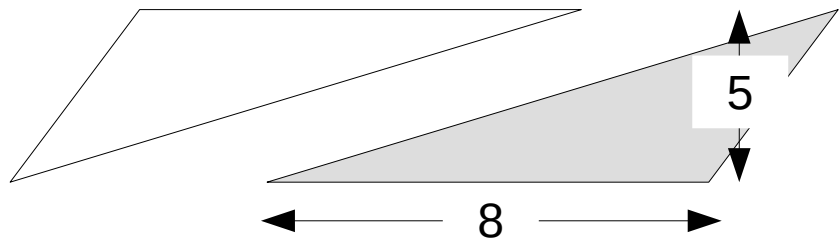
$$3.5 \times 4 = 14 \text{ gumballs}$$

3) The graph shows distance traveled by a train vs. time. How far will the train go in 2 hours?



4) What is the area of the shaded part of the parallelogram?

$$\frac{1}{2} \times 8 \times 5 = 20$$



5) Write the number as a fraction.

3.0009

$$3 \frac{9}{10000}$$

6) The ratio of boys to girls is 4 to 3. If there are 24 boys, how many girls are there?

$$\begin{aligned} 4 &: 3 \\ 24 &: ? \\ 3 \times 6 &= 18 \end{aligned}$$

7) What are all the factors of 18?

1, 2, 3, 6, 9, 18

8) What is the mode of the following list of numbers?

76 81 84 89 89 92

89

9) Find the missing number.

$$1 - \boxed{0.63} = 0.37$$

10) Solve.

$$1^3 + 0^7 \cdot 15.276 \div 57 =$$
$$1 + 0 = 1$$

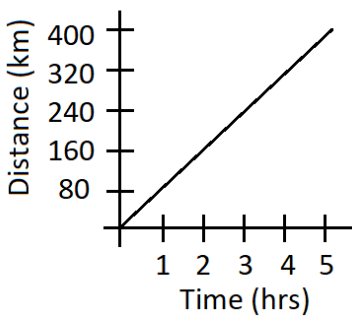
Name: _____

1) In **10,327.45986**, what digit is in the ten thousandths place? **8**

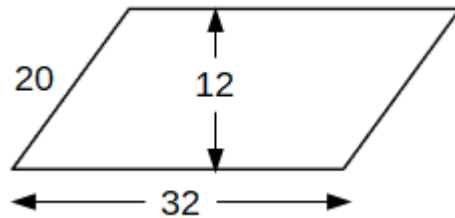
2) A movie starts at 7:33 pm and ends at 10:05 pm. How long is the movie?

$$27 \text{ minutes} + 2 \text{ hours} + 5 \text{ minutes} = 2 \text{ hours } 32 \text{ minutes}$$

3) What was the distance traveled after 5 hours?



4) What is the area of the parallelogram?



$$\frac{1}{2} \times 32 \times 12 = 192$$

5) Solve by writing the answer as a fraction in simplified form.

$$27 \div 7 = \frac{27}{7} = 3 \frac{6}{7}$$

6) Use ratios to convert 20 inches to centimeters. Use 1 inch = 2.54 centimeters.

$$1 : 2.54$$

$$20 : ?$$

$$2.54 \times 20 = 50.8 \text{ cm}$$

7) List all the factors of 24.

1, 2, 3, 4, 6, 8, 12, 24

8) What is the mode of the following list of numbers?

23 22 25 22 23 22 21

22

9) Find the missing number.

$$\frac{3}{5} \times \boxed{\frac{5}{3}} = 1$$

10) Round to the nearest ten thousand.

595,912

600,000

Name: _____

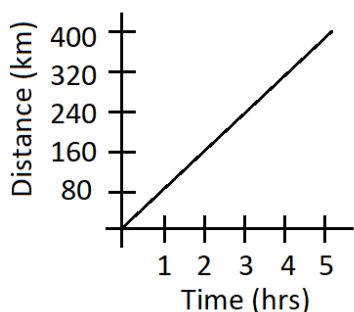
1) What is the next number in the pattern?

42,010 44,020 46,030 48,040

2) Our family bought 2 pizzas. We ate $\frac{7}{6}$ for dinner and $\frac{7}{12}$ the next day. How much pizza is left?

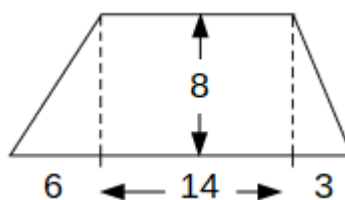
$$\frac{24}{12} - \frac{14}{12} - \frac{7}{12} = \frac{3}{12} = \frac{1}{4} \text{ pizza}$$

3) Use the graph to complete the table.



Time (hrs)	Distance (km)
1	80
2	160
3	240
4	320
5	400

4) Find the area of the trapezoid.



$$\frac{1}{2} \times 6 \times 8 + 14 \times 8 + \frac{1}{2} \times 3 \times 8 = 148$$

5) Reduce.

$$\frac{2 \times \cancel{3} \times \cancel{7}}{\cancel{3} \times 5 \times \cancel{7}} = \frac{2}{5}$$

6) Use ratios to convert 5 feet into centimeters. Use 1 ft = 30.48 cm.

$$\begin{aligned} 1 &: 30.48 \\ 5 &: ? \\ 30.48 \times 5 &= 152.4 \text{ cm} \end{aligned}$$

7) What are all the factors of 36?

1, 2, 3, 4, 6, 9,
12, 18, 36

8) What is the range of the following list of numbers?

6 9 10 13 14 18
 $18 - 6 = 12$

9) Find the value of the expression for $X = 3$.

$$X + 2 = 5$$

10) Round to the nearest ten thousandth.

4.913649
4.9136

Name: _____

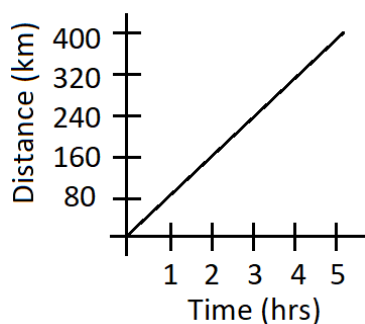
1) What is the next number in the pattern?

7,005,000 7,015,002 7,025,004 7,035,006

2) I cleaned $\frac{7}{12}$ of the yard. My sister cleaned $\frac{1}{9}$. How much is still left to clean?

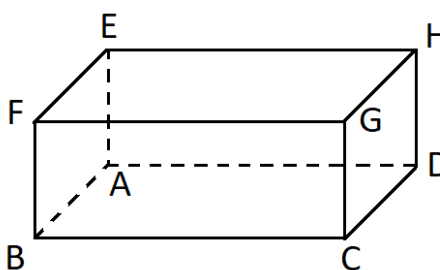
$$\frac{7}{12} = \frac{21}{36} \quad \frac{1}{9} = \frac{6}{36} \quad \frac{36}{36} - \frac{21}{36} - \frac{6}{36} = \frac{9}{36} = \frac{1}{4}$$

3) The graph shows distance traveled (y) vs. time (x). Find the slope of the line by calculating $y \div x$.



80 km/hr

4) Which edges are perpendicular to edge BC through vertex C?



GC and DC

Letters could be reversed

5) Reduce the fraction.

$$\frac{\cancel{2} \cdot \cancel{3} \cdot 3 \cdot \cancel{5} \cdot \cancel{7}}{\cancel{2} \cdot \cancel{3} \cdot 5 \cdot \cancel{5} \cdot \cancel{7}} = \frac{3}{5}$$

28 %

6) Write 0.28 as a percent.

7) List all the common factors of 4 and 24.

1, 2, 4

8) What is the median of the following list of numbers?

71 81 84 85 88 92 99

9) Find the value of the expression for $w = 4$.

$$20 \div w = 5$$

10) Solve.

$$534.81 \times 1000 = 534810$$

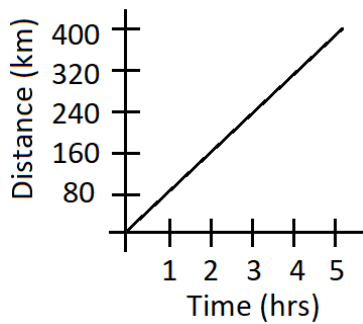
Name: _____

1) Write the number five million thirty one thousand eight hundred two.

5,031,802

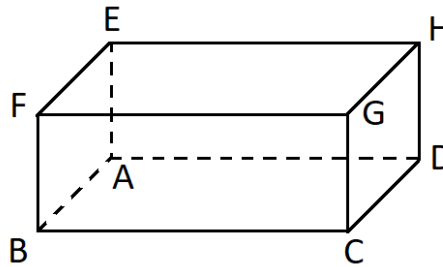
2) I had $\frac{3}{5}$ liters of lemonade. Then I drank $\frac{1}{5}$ liter. What is the ratio of the lemonade I have left to how much I had at first? $\frac{2}{5} : \frac{3}{5}$ 2 : 3

3) The graph shows distance traveled (y) vs. time (x). Write a function for y using x.



$$y = 80x$$

4) Which edges are parallel to edge **BF**?



\overline{EA} , \overline{HD} , and \overline{GC}

Letters could be reversed

5) Fill in the missing number.

$$\frac{5}{6} = \frac{15}{\boxed{18}}$$

7 %

7) List all the common factors of 7 and 27.

1

8) What is the range of the following list of numbers?

85 92 97 89 71 76 95

$$97 - 71 = 26$$

9) Find the value of the expression for $Z = 5$.

$$Z^2 + 12 = 37$$

10) Fill in the blank.

$$0.036 \times \underline{100} = 3.6$$

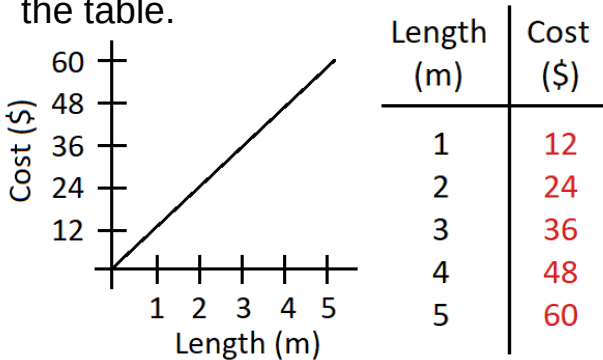
Name: _____

1) Write the decimal numeral thirty seven and 4 hundredths. **37.04**

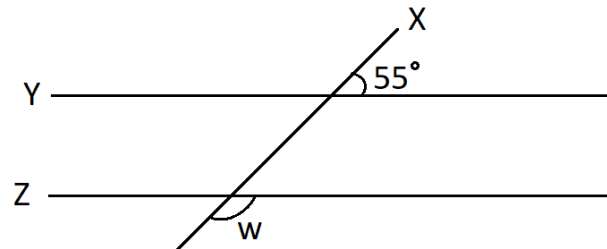
2) I have a bunch of 3" by 5" index cards. If I want to arrange them into a square, what is the fewest number of cards I will need?

15" on each side, $5 \times 3 = 15$ cards

3) Use the graph to complete the table.



4) Line X intersects the parallel lines Y and Z. What is the measure of angle w?



$$180 - 55 = 125^\circ$$

5) Fill in the missing number.

$$\frac{2}{7} = \frac{\boxed{8}}{28}$$

6) Write 0.9 as a percent.

90 %

7) Find the greatest common factor (GCF) of 14 and 49.

7

8) What is the average of 157, 171, and 176?

$$(157 + 171 + 176) \div 3 = 168$$

9) Find the value of the expression for $X = 9$.

$$\frac{58 - x}{7} = 7$$

10) Fill in the blank.

$$\underline{0.079} \times 100 = 7.9$$

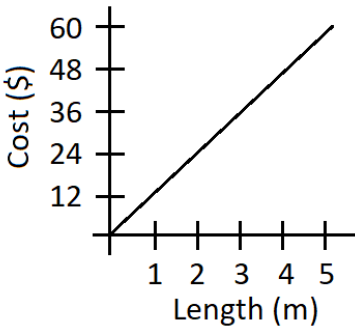
Name: _____

1) Write the decimal numeral seventy five thousandths. **0.075**

2) I bought 4 identical shirts for \$92. If each shirt was discounted \$4, what was the original price per shirt?

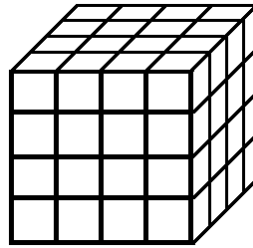
$$92 \div 4 = 23 \quad 23 + 4 = \$27$$

3) Find the slope of the line by calculating $y \div x$.



**12 dollars
per meter**

4) How many small cubes are used to make up the larger cube?



$$4 \times 4 \times 4 = 64$$

5) Reduce the fraction.

$$\frac{3}{12}$$

$$\frac{1}{4}$$

350 %

6) Write 3.5 as a percent.

7) Find the greatest common factor (GCF) of 24 and 56.

8

8) What is the mean of 13, 59, 74, and 122?

$$(13 + 59 + 74 + 122) \div 4 = 67$$

9) Find the value of the expression for $y = 7$.

$$5y - \frac{7}{y} = 34$$

10) Fill in the blanks and solve.

$$11 \times 0.0008 =$$

$$11 \times \underline{8} \times \underline{0.0001} =$$

0.0088



Name: _____

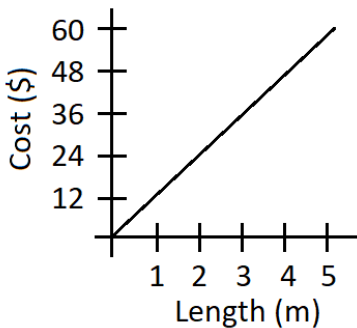
1) Write the decimal numeral six and four hundred eighty one hundred thousandths.

6.00481

2) I answered 86% of the problems on my test correctly. If there were 50 problems, how many problems did I get wrong?

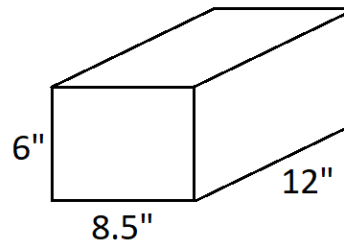
$0.86 \times 50 = 43$ problems

3) Write a formula to describe how to calculate y using x.



$y = 12x$

4) What is the volume of this shoe box?



$6'' \times 8.5'' \times 12'' = 612 \text{ in}^3$

5) Reduce the fraction.

$\frac{45}{115}$

$\frac{9}{13}$

0.73

7) Find the greatest common factor (GCF) of 36 and 72.

36

8) What is the average of 92.5, 97.6, and 104.5?

$(92.5 + 97.6 + 104.5) \div 3 = 98.2$

9) Simplify the expression.

$8w - 5w + 6 + 3w - 2$

$6w + 4$

10) Fill in the blanks and solve.

$81.79 \times 5000 =$

$81.79 \times \underline{5} \times \underline{1000} =$

408950



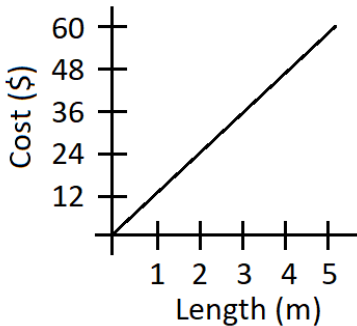
Name: _____

1) Put the numbers in increasing order. 689,181 698,000 689,118
 689,118 689,181 698,000

2) A blanket cost \$60, then it was discounted 20%. What is the discounted price?

$$0.8 \times 60 = \$48$$

3) Is cost proportional to length in this graph?



yes

4) What is the circumference of a circle with radius of 7 inches? Use 3.14 for π (pi).

$$\begin{aligned} \text{Circumference} &= \pi d = 2\pi r \\ &= 2 \times \pi \times 7 \\ &= 2 \times 3.14 \times 7 \\ &= 43.96 \text{ inches} \end{aligned}$$

5) Simplify.

$$\frac{14}{91} \quad \frac{2}{13}$$

6) Write 20% as a decimal.

$$0.2$$

7) What is the greatest common factor (GCF) of 96 and 100?

$$4$$

8) What is the mean of 46.7, 51.6, 52.9, and 63.6?

$$\begin{aligned} &(46.7 + 51.6 + 52.9 + 63.6) \div 4 \\ &= 53.7 \end{aligned}$$

9) Simplify the expression.

$$z \cdot z \cdot 3 \cdot 6 \quad 18z^2$$

10) Solve.

$$3.61 \times 0.07 = 0.2527$$

Name: _____

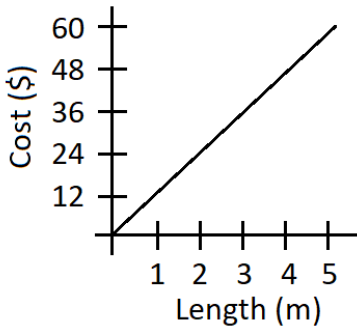
1) Put the numbers in decreasing order.

-3 8 -7 5 0
8 5 0 -3 -7

2) A farm with 32 animals has 8 cows. What percent of the farm animals are not cows?

$$24 \div 32 = 0.75 \quad 75\%$$

3) Assuming cost is proportional to length, what is the cost for 10 m.



\$120

4) What is the area of a circle with a diameter of 11 cm. Use 3.14 for π (pi).

$$\begin{aligned} \text{Area} &= \pi r^2 \\ &= \pi \times (11 \div 2)^2 \\ &= 94.985 \text{ inches}^2 \end{aligned}$$

5) Fill in the missing number.

$$\frac{27}{36} = \frac{\boxed{3}}{4}$$

0.03

6) Write 3% as a decimal.

7) What is the least common multiple (LCM) of 2, 5, and 6?

30

8) If a coin is flipped, what is the probability that it will land on heads?

50 %

9) Simplify the expression.

$$\begin{aligned} a \cdot a + 3a + a^2 - 2a + 7 \\ 2a^2 + a + 7 \end{aligned}$$

10) Fill in the blanks.

$$\begin{aligned} 183.6 &= \underline{1836} \div 10 \\ &= \underline{18360} \div 100 \\ &= \underline{183600} \div 1000 \end{aligned}$$



Name: _____

1) Write $(6 \times 30) + (20 - 7)$ in standard notation (as a number).

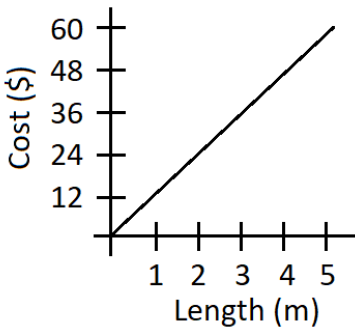
$$180 + 13 = 193$$

2) I gave 20% of my bottle cap collection to my friend. If I gave my friend 60 bottle caps, how many do I have now?

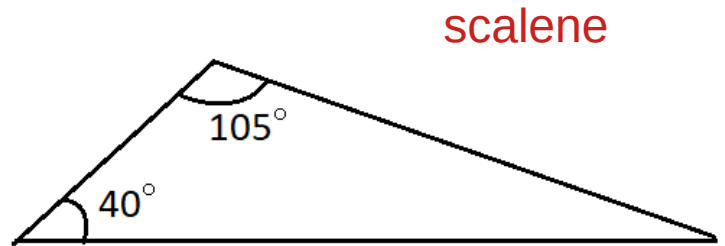
$$60 \div 0.2 = 60 \times 5 = 300 \quad 300 - 60 = 240 \text{ caps}$$

3) How much would 8 meters cost?

$$12 \times 8 = \$96$$



4) Is this triangle an isosceles, equilateral, right, or scalene triangle?



5) Fill in the missing number.

$$\frac{49}{56} = \frac{7}{\boxed{8}}$$

6) Write 163% as a decimal number.

$$1.63$$

7) What is the least common multiple (LCM) of 4, 6, and 10?

$$60$$

8) If a number cube is rolled, what is the probability that a 6 will be rolled?

$$\frac{1}{6}$$

9) Simplify the expression.

$$y \cdot y \cdot y \quad y^3$$

10) Solve.

$$0.28 \div 7 = 0.04$$

Name: _____

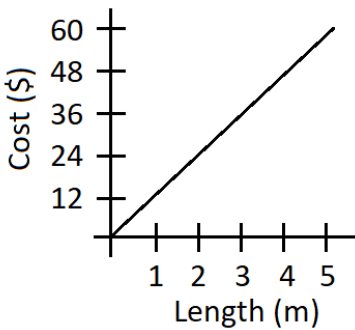
1) Write in normal form (as a number).

$$3 \times 10^5 + 7 \times 10^3 + 2 \times 10^2$$
$$307,020$$

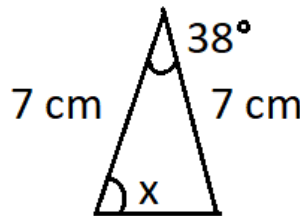
2) The regular price of the white shirt is \$25. It is discounted an additional 10%. The regular price of the blue shirt is \$30. It is discounted an additional 30%. Which shirt is less expensive?

$$\text{Red: } 0.9 \times 25 = \$22.50 \quad \text{Blue: } 0.7 \times 30 = \$21$$

3) Write a formula to describe how to calculate y using x.



4) What is the measure of angle x?



$$x + x + 38 = 180$$
$$2x = 142$$
$$x = 71^\circ$$

5) Rewrite the two fractions with a common denominator.

$$\frac{3}{8} \text{ and } \frac{5}{6} \quad \frac{9}{24} \text{ and } \frac{20}{24}$$

6) Write 13 1/2% as a decimal number.

$$0.135$$

7) What is the least common multiple (LCM) of 3, 27, and 54?

$$54$$

8) If a number cube is rolled, what is the probability that a number greater than 4 will be rolled?

$$\frac{2}{6} = \frac{1}{3}$$

9) Solve for z.

$$7 + z = 9 + 7$$
$$z = 9$$

10) Solve.

$$0.056 \div 0.007 = 8$$

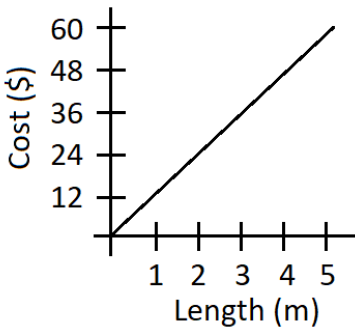
Name: _____

1) Write in expanded form (using exponents). **15,400**

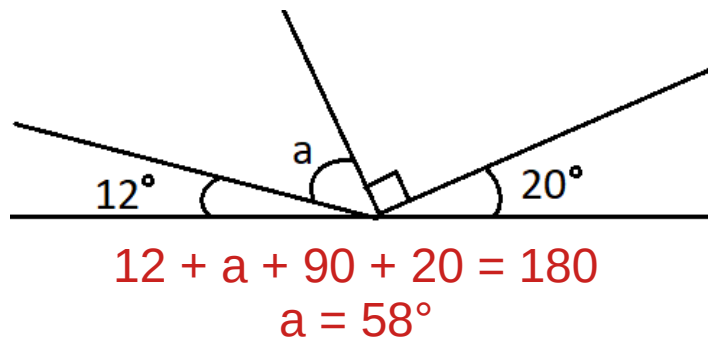
2) I have $\frac{1}{3}$ yard of rope. My friend has $\frac{5}{9}$ yard of rope. How many times more rope does my friend have than me? Express answer as a mixed number.

$$\frac{5}{9} \div \frac{1}{3} = \frac{5}{9} \times 3 = \frac{15}{9} = \frac{5}{3} = 1\frac{2}{3}$$

3) How much length can you get for \$132?



4) Find the measure of angle **a**.



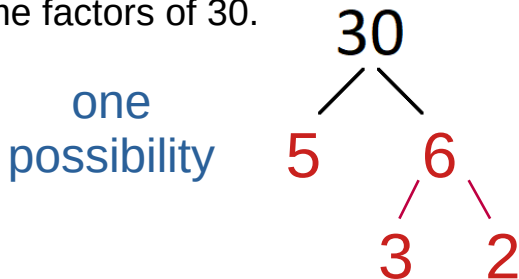
5) Rewrite the two fractions with a common denominator.

$$\frac{1}{7} \text{ and } \frac{5}{9} \quad \frac{9}{63} \text{ and } \frac{35}{63}$$

6) Write $\frac{89}{100}$ as a percent.

89 %

7) Use a factor tree to find the prime factors of 30.



8) If a number cube is rolled, what is the probability that the number rolled will be less than 5?

$$\frac{4}{6} = \frac{2}{3}$$

9) Solve for **X**.

$$3 + x = 7\frac{3}{4} \quad x = 4\frac{3}{4}$$

10) Fill in the blanks and solve.

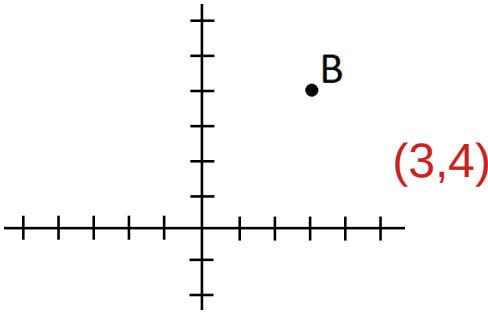
$$108 \div 900 =$$
$$108 \div \underline{9} \div \underline{100} = 0.12$$

Name: _____

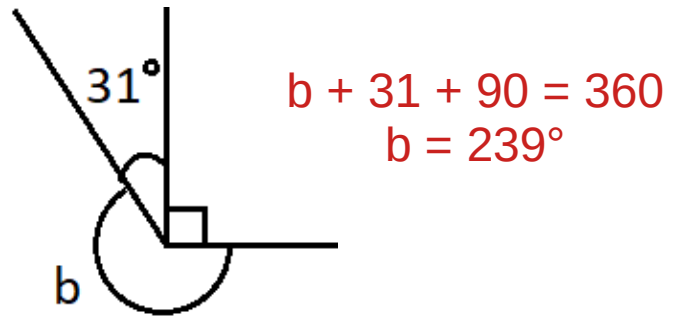
1) Is 23 a prime number? **yes**

2) I painted $\frac{5}{12}$ square meters, while my sister painted $\frac{7}{8}$ square meters. How many times more area did my sister paint than me? $\frac{7}{8} \div \frac{5}{12} = \frac{7}{8} \times \frac{12}{5} = \frac{84}{40} = \frac{21}{10} = 2.1$

3) What are the coordinates of point **B**?



4) Find the measure of $\angle b$.



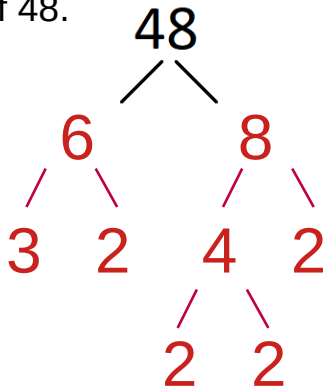
5) Fill in the missing comparison symbol.

$$\frac{5}{6} \bigcirc \frac{8}{9}$$

26 %

6) Write $\frac{13}{50}$ as a percent.

7) Use prime factorization to find the prime factors of 48.



8) If two coins are flipped, what is the probability that both will be heads?

$$\frac{1}{4}$$

9) Solve for **b**.

$$5 \frac{9}{11} - b = 3$$
$$b = 2 \frac{9}{11}$$

10) Solve. Round to 3 decimal places.

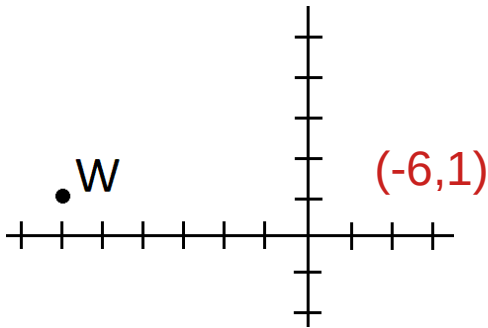
$$31 \div 13 = 2.385$$

Name: _____

1) Is 56 a prime number? **no**

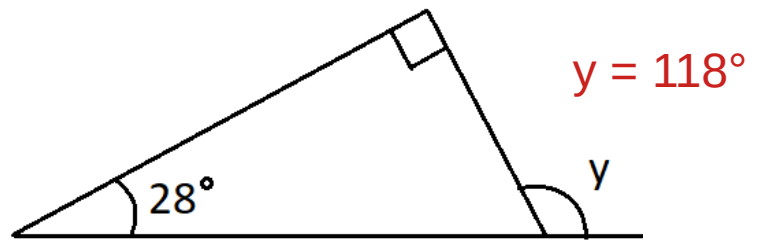
2) I picked $\frac{9}{10}$ pound of cherries. My sister picked $\frac{2}{3}$ the amount I did. How many pounds did she pick? $\frac{9}{10} \times \frac{2}{3} = \frac{18}{30} = \frac{3}{5}$ lb

3) What are the coordinates of point **W**?

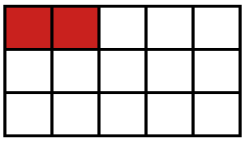


4) What is the measure of angle **y**?

$$28 + 90 + (180 - y) = 180$$



5) Shade the rectangle to illustrate the multiplication and solve.



$$\frac{1}{3} \times \frac{2}{5} = \frac{2}{15}$$

6) Write $\frac{11}{25}$ as a percent.

44 %

7) Write the prime factorization of 54.

$$2 \times 3 \times 3 \times 3$$

8) If two coins are flipped, what is the probability that one will land on heads and the other will land on tails?

$$\frac{2}{4} = \frac{1}{2}$$

9) Solve for **y**.

$$\frac{5}{6} = \frac{y}{42} \quad y = 35$$

10) Solve.

$$\frac{7}{12} + \frac{5}{6} = \frac{17}{12} = 1 \frac{5}{12}$$

Name: _____

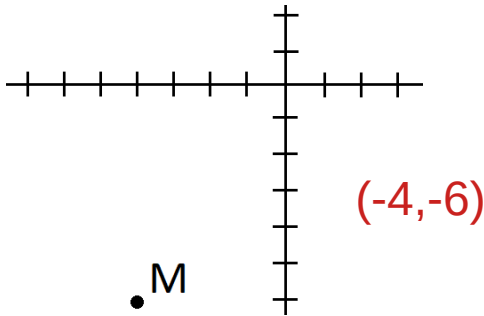
1) What is the quotient when the sum of 7 and 8 is divided by the difference of 9 and 6?

$$(7 + 8) \div (9 - 6) = 15 \div 3 = 5$$

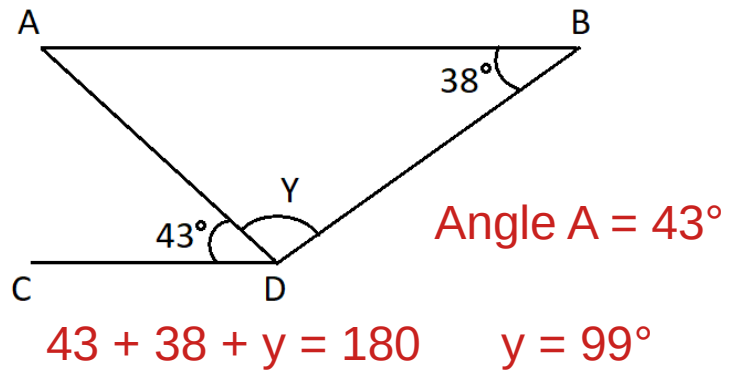
2) I have $\frac{3}{4}$ lb of blueberries while my sister has $\frac{6}{7}$ lb. What is the ratio of my blueberries to my sister's? Express answer as a simplified fraction.

$$\frac{3}{4} \div \frac{6}{7} = \frac{3}{4} \times \frac{7}{6} = \frac{7}{8}$$

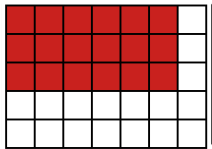
3) What are the coordinates of point M?



4) \overline{AB} is parallel to \overline{CD} . Find $\angle Y$.



5) Shade the rectangle to illustrate the multiplication and solve.



$$\frac{3}{5} \times \frac{6}{7} = \frac{18}{35}$$

25 %

7) Write the prime factorization of 84.

$$2 \times 2 \times 3 \times 7$$

8) If a coin is flipped twice, what is the probability that first it will land on heads and then it will lands on tails?

$$\frac{1}{4}$$

9) Solve for y.

$$3000 - y = 392$$
$$y = 2608$$

10) Solve.

$$\frac{4}{9} - \frac{1}{12} = \frac{16}{36} - \frac{3}{36} = \frac{13}{36}$$

Name: _____

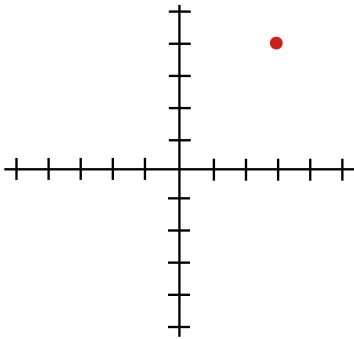
1) What is the difference when the quotient of 21 and 7 is subtracted from the product of 6 and 4?

$$(6 \times 4) - (21 \div 7) = 24 - 3 = 21$$

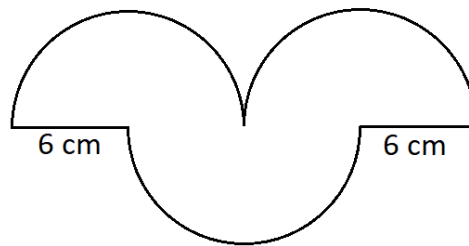
2) If you can buy 16 marbles for \$5.60, how much would 5 marbles cost?

$$\$5.60 \div 16 = \$0.35 \text{ each} \quad \$0.35 \times 5 = \$1.75$$

3) Draw a point at (3, -4).



4) What is the perimeter of this shape made of three semicircles? (Use 3.14 for π .)



$$2 \times 6 + (3 \div 2)(2)(3.14)(6) = 68.52 \text{ cm}$$

5) Find the value of three fifths of 15.

$$\frac{3}{5} \times 15 = 9$$

6) Write $1\frac{1}{5}$ as a percent.

120 %

7) Write the prime factorization of 13.

$$1 \times 13$$

8) If a number cube is rolled twice, what is the probability that a 5 will be rolled both times?

$$\frac{1}{6} \times \frac{1}{6} = \frac{1}{36}$$

9) Solve for p.

$$12.7 - p = 5.2$$

$$p = 7.5$$

10) Solve.

$$7\frac{3}{5} + 2\frac{4}{7} = 7\frac{21}{35} + 2\frac{20}{35} = 9 + \frac{41}{35} = 10\frac{6}{35}$$

Name: _____

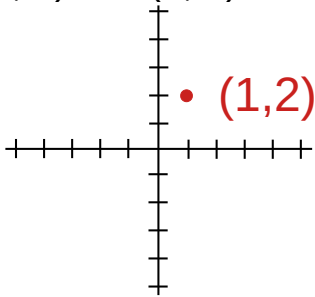
1) What is the product when the sum of 500 and 30 is multiplied by the quotient of 180 and 90?

$$(500 + 30) \times (180 \div 90) = 530 \times 2 = 1060$$

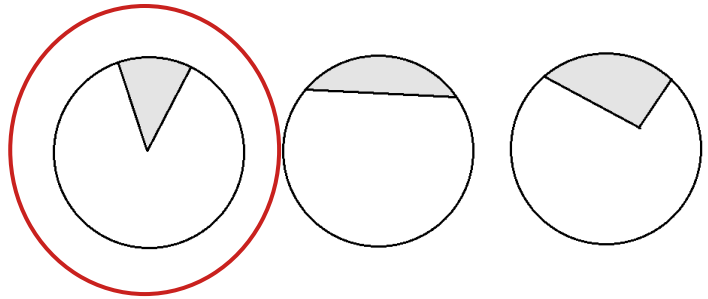
2) Juice concentrate and water are mixed in a ratio of 1:8. If I have 2 liters of diluted juice, how much concentrate was used?

Juice is 1 part out of 9 $\frac{2}{9}$ liters

3) What are the coordinates of the point halfway between (-3, 2) and (5, 2)?



4) Which of these shapes is a sector?



5) What is two thirds of 13? Write answer as a mixed number.

$$\frac{2}{3} \times 13 = \frac{26}{3} = 8 \frac{2}{3}$$

6) Write $\frac{3}{7}$ as a percent.

Round to the nearest percent.

$$3 \div 7 \approx 0.428 \quad 43\%$$

7) Write the prime factorization of 54 using exponents.

$$2 \times 3^3$$

8) If a number cube is rolled twice, what is the probability that a number greater than 2 will be rolled both times?

$$\frac{4}{6} \times \frac{4}{6} = \frac{16}{36} = \frac{4}{9}$$

9) Solve for z.

$$5.31 + z = 7$$

$$z = 1.69$$

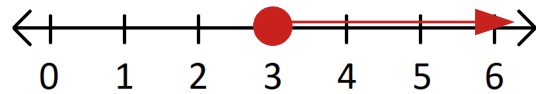
10) Solve.

$$18 \frac{5}{10} + 6 \frac{7}{30} = 24 \frac{22}{30} = 24 \frac{11}{15}$$

Name: _____

1) Plot the inequality on the number line.

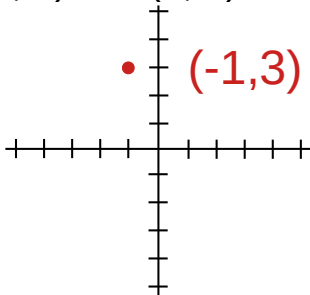
$$X \geq 3$$



2) I have a piece of string 15 feet long. I want to cut it into pieces $1\frac{1}{2}$ feet long. How many pieces can I cut?

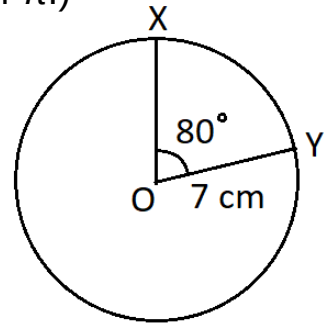
$$15 \div 1\frac{1}{2} = 10 \text{ pieces}$$

3) What are the coordinates of the point halfway between (-5, 1) and (3, 5)?



4) Find the perimeter of sector **XOY**.
(Express answer in terms of π .)

$$\begin{aligned} \text{Full circumference:} & 14\pi \text{ cm} \\ \text{Sector XOY:} & 14\pi \cdot \left(\frac{80}{360}\right) + 7 + 7 \\ & = (28\pi \div 9 + 14) \text{ cm} \end{aligned}$$



5) Find the value of two ninths of five sevenths.

$$\frac{2}{9} \times \frac{5}{7} = \frac{10}{63}$$

6) Write 81% as a fraction.

$$\frac{81}{100}$$

7) Write the prime factorization of 60 using exponents.

$$2^2 \times 3 \times 5$$

8) A bag contains 2 black and 2 white buttons. If one is drawn and replaced and then another draw is made, what is the probability that it will be black both times?

$$\frac{2}{4} \times \frac{2}{4} = \frac{4}{16} = \frac{1}{4}$$

9) Solve for **m**.

$$\begin{aligned} m + \frac{5}{7} &= 1\frac{2}{7} \\ m &= \frac{4}{7} \end{aligned}$$

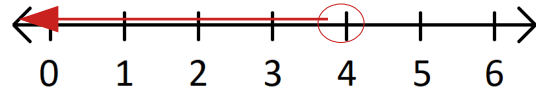
10) Solve.

$$\begin{aligned} 14\frac{3}{8} - 5\frac{5}{6} &= 13\frac{11}{8} - 5\frac{5}{6} = \\ &= 13\frac{33}{24} - 5\frac{20}{24} = 8\frac{13}{24} \end{aligned}$$

Name: _____

1) Plot the inequality on the number line.

$$X < 4$$



2) A class has 120 students. Fifteen percent of them wear glasses. How many students do not wear glasses?

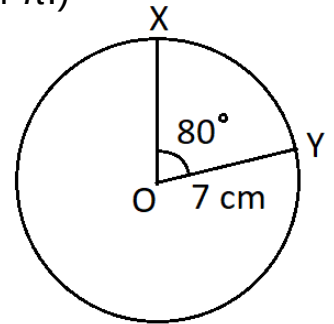
$$85\% \text{ of } 120 = 0.85 \times 120 = 102 \text{ students}$$

3) Calculate the values of y to complete the table using the equation: $y = 3x$

x	1	2	3	4	5
y	3	6	9	12	15

4) What is the area of sector XOY ? (Express answer in terms of π .)

$$\begin{aligned} \text{Full area:} \\ \pi 7^2 \text{ cm}^2 &= 49\pi \text{ cm}^2 \\ \text{Sector } XOY: \\ 49\pi \cdot (80/360) \\ &= 98\pi \div 9 \text{ cm}^2 \end{aligned}$$



5) Write the mixed number as an improper fraction, then multiply by $\frac{1}{4}$ and simplify.

$$2 \frac{2}{3} \quad \frac{8}{3} \times \frac{1}{4} = \frac{2}{3}$$

6) Write 46% as a simplified fraction.

$$\frac{46}{100} = \frac{23}{50}$$

7) Write the prime factorization of 100 using exponents.

$$2^2 \times 5^2$$

8) A bag contains 2 black and 2 white buttons. If one is drawn and replaced and another draw is made, what is the probability that one of the draws will be black and one will be white, regardless of order?

$$\frac{4}{4} \times \frac{2}{4} = \frac{8}{16} = \frac{1}{2}$$

9) Solve for r .

$$3r = 48 \quad r = 16$$

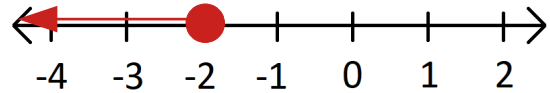
10) Solve.

$$\frac{2}{3} - \frac{5}{8} + \frac{1}{6} = \frac{16}{24} - \frac{15}{24} + \frac{4}{24} = \frac{5}{24}$$

Name: _____

1) Plot the inequality on the number line.

$$X \leq -2$$



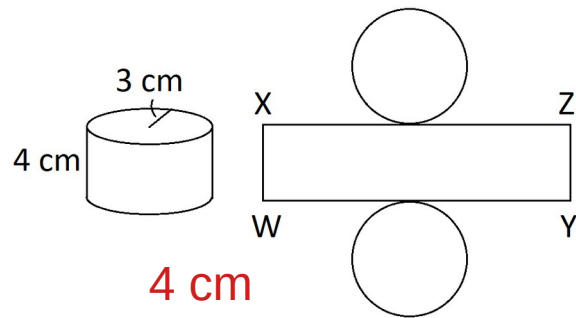
2) One bag of apples is 8 pounds 10 ounces. Another bag of apples is 8.6 pounds. Which bag weighs more?

$$0.6 \text{ lb} = 0.6 \times 16 \text{ ounces} = 9.6 \text{ ounces} \quad \text{8 lb 10 oz is more}$$

3) Complete the table using the equation: $y = 8 - 2x$

x	1	2	3	4	5
y	6	4	2	0	-2

4) The figures below show a solid cylinder and its net. How long is side **WX**?



5) Find the value of $\frac{4}{9}$ of $3\frac{5}{6}$.

Write the answer as a mixed number.

$$\frac{4}{9} \times \frac{23}{6} = \frac{46}{27} = 1\frac{19}{27}$$

6) Write 20% as a simplified fraction.

$$\frac{20}{100} = \frac{1}{5}$$

7) What do you get when you multiply the greatest common factor of 6 and 10 by the least common multiple of 6 and 10?

$$2 \times 30 = 60$$

8) A bag contains 2 red buttons, 7 white buttons, and 1 green button. If a button is drawn, what is the probability that it will be red?

$$\frac{2}{10} = \frac{1}{5}$$

9) Solve for n.

$$7n = 189 \quad n = 27$$

10) Solve.

$$3\frac{\cancel{9}}{\cancel{21}} \times \frac{\cancel{7}}{\cancel{18}^2} = \frac{1}{6}$$

Name: _____

1) Fill in the missing comparison symbol.

$$-4 \bigcirc -5$$

2) A 1 pint bottle of soy sauce is \$4.80. How much does it cost per ounce?

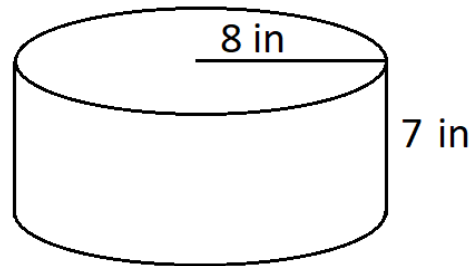
$$1 \text{ pint} = 32 \text{ ounces} \quad \$4.80 \div 32 = \$0.15 \text{ per ounce}$$

3) Use the data given in the table to fill in the blank.

x	1	2	3	4
y	40	80	120	160

$$y = \boxed{40} x$$

4) What is the surface area of this cylinder? (Use 3.14 for π .)



$$2 \times (3.14 \times 64) + 16 \times 3.14 \times 7 = 753.6 \text{ in}^2$$

5) What is the reciprocal of $\frac{5}{9}$?

$$\frac{9}{5}$$

6) Write 160% as a mixed number.

$$\frac{160}{100} = \frac{8}{5} = 1 \frac{3}{5}$$

7) What is the product of the least common multiple of 8 and 12 and the greatest common factor of 8 and 12?

$$24 \times 4 = 96$$

8) A bag contains 2 red buttons and 2 blue buttons. If two buttons are drawn out at the same time, what is the probability that both will be red?

$$\frac{2}{4} \times \frac{1}{3} = \frac{2}{12} = \frac{1}{6}$$

9) Solve for C.

$$\frac{C}{13} = 4 \quad C = 52$$

10) Solve.

$$3 \frac{1}{3} \times 8 \frac{2}{5} =$$
$$\frac{2\cancel{10}}{\cancel{3}} \times \frac{4\cancel{2}^{14}}{\cancel{5}} = 28$$

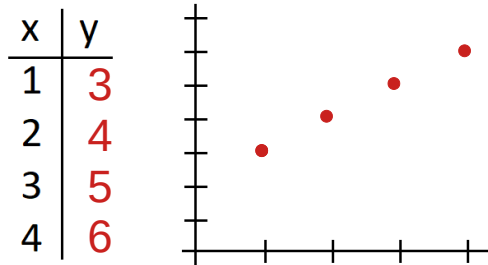
Name: _____

1) Fill in the missing comparison symbol. $\frac{4}{9} \text{ (<) } 0.5$

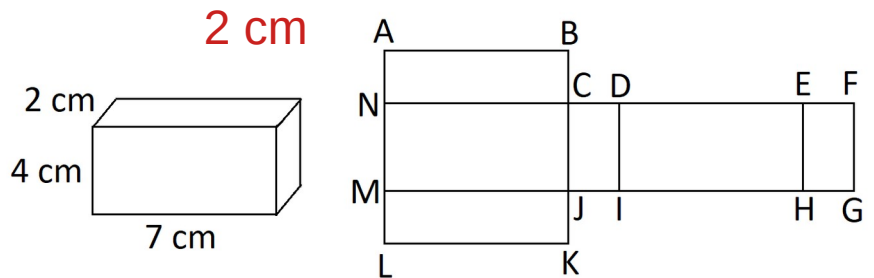
2) I ride my bike at 15 kilometers per hour to the store. If the store is 9 kilometers away, how many minutes will it take me to get there?

$15 \text{ km/hour} = 15 \div 60 \text{ km/min} = 0.25 \text{ km/min} \quad 9 \div 0.25 = 36 \text{ min}$

3) Plot the points from the equation, $y = x + 2$, for the values listed in the table.



4) The figures below show a rectangular prism and its net. What is the length of side EF?



5) How many $\frac{1}{4}$ are in 1?

4

6) Write $2\frac{1}{2}\%$ as a simplified fraction.

$$\frac{2.5}{100} = \frac{1}{40}$$

7) Find the greatest common factor (GCF) of 12 and 20. Use the GCF to reduce the fraction.

$$\text{GCF} = \boxed{4} \quad \frac{12}{20} = \frac{3}{5}$$

8) A bag contains 2 red buttons and 2 blue buttons. If two buttons are drawn at the same time, what is the probability that one was red and one was blue?

$$\frac{4}{4} \times \frac{2}{3} = \frac{8}{12} = \frac{2}{3}$$

9) Solve for A.

$$\frac{98}{A} = 7 \quad A = 14$$

10) Solve.

$$\frac{3}{7} \div 4 = \frac{3}{7} \times \frac{1}{4} = \frac{3}{28}$$

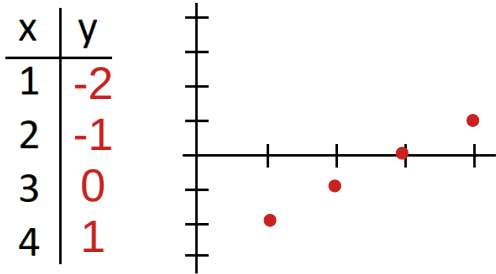
Name: _____

1) Fill in the missing comparison symbol. $0.75 \text{ } \textcircled{<} \text{ } \frac{4}{5}$

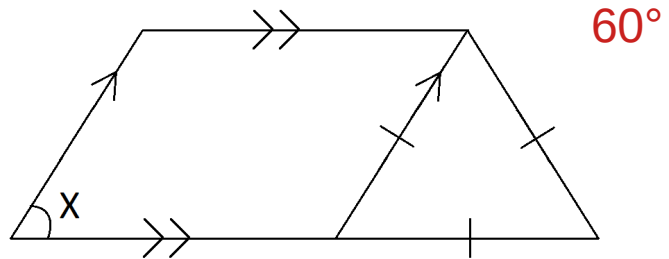
2) I bought 14 packs of cookies for a party. Each pack contained 24 cookies and each cookie weighed 15 grams. How many grams of cookies do I have?

$$14 \times 24 \times 15 = 5,040 \text{ grams}$$

3) Plot the points from the equation, $y = x - 3$, for the values listed in the table.



4) What is the measure of $\angle X$?



5) How many $\frac{3}{8}$ are in 2?

Write the answer as a simplified mixed number.

$$2 \div \frac{3}{8} = 2 \times \frac{8}{3} = \frac{16}{3} = 5 \frac{1}{3}$$

6) What is 50% of 670?

$$0.5 \times 670 = 335$$

7) Find the greatest common factor (GCF) of 33 and 121. Use the GCF to reduce the fraction.

$$\text{GCF} = \boxed{11} \quad \frac{33}{121} = \frac{3}{11}$$

8) A bag contains 3 white buttons and 3 green buttons. If two buttons are drawn at the same time, what is the probability that both will be green?

$$\frac{3}{6} \times \frac{2}{5} = \frac{6}{30} = \frac{1}{5}$$

9) Solve for s.

$$5s = 0.75 \quad s = 0.15$$

10) Solve.

$$\frac{13}{16} \div 3 \frac{1}{4} = \frac{13}{16} \times \frac{4}{13} = \frac{4}{16} = \frac{1}{4}$$

Name: _____

1) Fill in the missing comparison symbol.

$$0.3 + 0.7 \text{ (=) } 40 \div 40$$

2) A train is going 140 miles per hour. How long will it take to go 105 miles in minutes?

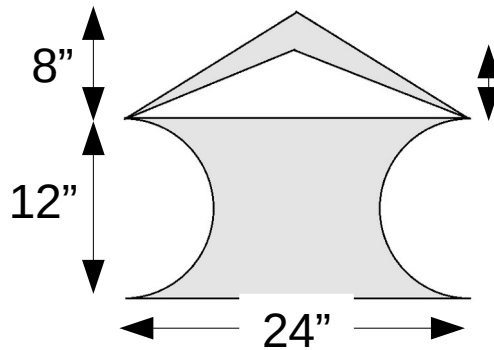
$$(105 \div 140) \text{ hours} = 0.75 \text{ hours} \quad 0.75 \times 60 = 45 \text{ minutes}$$

3) The table shows how many books were sold each month. What was the average number sold.

Jan	Feb	Mar	Apr	May
170	220	210	185	215

$$(170 + 220 + 210 + 185 + 215) \div 5 = 200 \text{ books}$$

4) What is the area of the shaded region?



$$12 \cdot 24 - \pi 36 + \frac{1}{2} \cdot 24 \cdot 8 - \frac{1}{2} \cdot 24 \cdot 6$$

$$= 235.0 \text{ in}^2$$

5) How many $\frac{2}{7}$ are in $\frac{13}{14}$?

Write the answer as a simplified mixed number.

$$\frac{13}{14} \div \frac{2}{7} = \frac{13}{14} \times \frac{7}{2} = \frac{13}{4} = 3 \frac{1}{4}$$

7) Find the greatest common factor (GCF) of 10 and 25. Use the GCF to factor the expression.

$$\text{GCF} = \boxed{5}$$

$$10 + 25 = \underline{5} (\underline{2} + \underline{5})$$

6) What is 30% of 60?

$$0.3 \times 60 = 18$$

8) A bag contains 3 white buttons and 3 green buttons. If two buttons are drawn at the same time, what is the probability that one will be white and one green?

$$\frac{6}{6} \times \frac{3}{5} = \frac{18}{30} = \frac{3}{5}$$

9) Solve for y.

$$\frac{3}{y} = \frac{10}{13} \quad y = 3.9$$

$$\frac{4}{9} \times \frac{5}{7} \div \frac{10}{21} =$$

$$\frac{\overset{2}{\cancel{4}}}{\underset{3}{\cancel{9}}} \times \frac{\cancel{5}}{\cancel{7}} \times \frac{\cancel{21}^{\cancel{3}}}{\cancel{10}} = \frac{2}{3}$$

Name: _____

1) Put the numbers in ascending order. -5 0.75 $\frac{7}{8}$ -0.57

$$-5 \quad -0.57 \quad 0.75 \quad \frac{7}{8}$$

2) The concert venue sold 1,216 hot dogs and 1,984 hamburgers. What percentage of the food items sold were hot dogs?

$$1,216 \div (1,216 + 1,984) = 0.38 = 38\%$$

3) The table shows the temperature over 5 days. The average temperature was 81° . Fill in the missing number.

M	T	W	Th	F
78	82	79	87	79

$$5 \times 81 - 78 - 82 - 87 - 79 = 79$$

5) Fill in the missing comparison symbol.

$$\frac{36}{63} \frac{4}{7} > \frac{5}{9} \frac{35}{63}$$

7) Find the greatest common factor (GCF) of 36 and 42. Use the GCF to factor the expression.

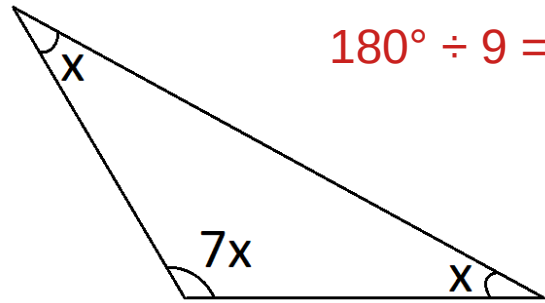
$$\text{GCF} = \boxed{6}$$

$$36 + 42 = \underline{6} (\underline{6} + \underline{7})$$

9) Solve for m .

$$\frac{5m}{9} = \frac{25}{18} \quad m = 2.5$$

4) What is the measure of angle X ?



$$180^\circ \div 9 = 20^\circ$$

6) What is 1% of 57,000?

$$0.01 \times 57000 = 570$$

8) A bag contains 2 red, 2 blue, and 4 green buttons. If two buttons are drawn at random, what is the probability that both will be green?

$$\frac{4}{8} \times \frac{3}{7} = \frac{12}{56} = \frac{3}{14}$$

10) Solve.

$$3.032 + \frac{57}{1000} =$$

$$3.032 + 0.057 = 3.089$$

Name: _____

1) Put the numbers in descending order. $-\frac{8}{7}$ $1\frac{7}{8}$ 1.9 -1.1
 1.9 $1\frac{7}{8}$ -1.1 $-\frac{8}{7}$

2) Kids make up 12% of the community. If there are 1,500 kids, how many members are in the community?

$$1500 \div 0.12 = 12,500 \text{ members}$$

3) If \$110 more was earned on Friday than Tuesday and \$210 was earned on average, fill in the missing numbers.

M	T	W	Th	F
180	190	230	150	300

$$5 \times 210 - 180 - 230 - 150 = 490$$

$$(490 - 110) \div 2 = 190$$

5) Fill in the missing comparison symbol.

$$\frac{46}{69} > \frac{2}{3} > \frac{15}{23} > \frac{45}{69}$$

7) Find the greatest common factor (GCF) of 26 and 104. Use the GCF to factor the expression.

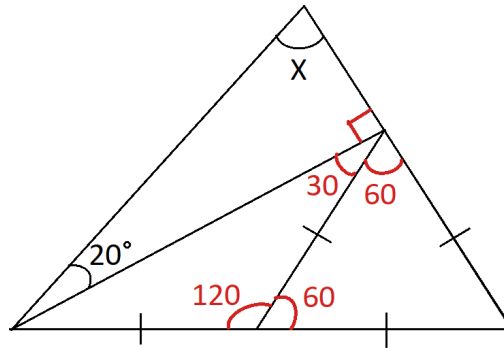
$$\text{GCF} = \boxed{26}$$

$$26 + 104 = \underline{26} (\underline{1} + \underline{4})$$

9) Solve for z.

$$4z + 5 = 21 \quad z = 4$$

4) Find the measure of $\angle X$.



70°

6) What is 45% of 270?

$$0.45 \times 270 = 121.5$$

8) A bag contains 4 black, 7 green, and 5 white buttons. If two buttons are drawn at the same time, what is the probability that both will be white?

$$\frac{5}{16} \times \frac{4}{15} = \frac{20}{240} = \frac{1}{12}$$

10) Solve.

$$0.07 \times \frac{13}{21} =$$

$$\frac{7}{100} \times \frac{13}{\cancel{21}_3} = \frac{13}{300}$$

