

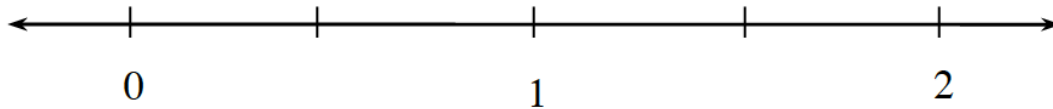
**Math Concepts Problem Set 15**

Name \_\_\_\_\_

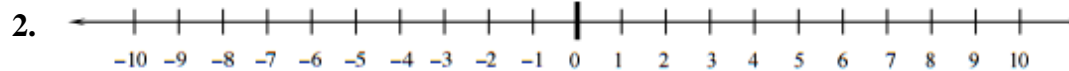
Assigned Thursday 1/9/20, due Friday 1/17

**No Work Shown, No Credit Given**

Period \_\_\_\_\_

**1** Label the following numbers on the line above in the appropriate locations.

- A)  $1\frac{1}{10}$     B) 71%    C) 1.7    D)  $\frac{1}{20}$     E) 0.04    F) 9%



Use the number line to find your answers.

- a)  $-7 + 5$     b)  $-9 + -1$     c)  $6 + -6$     d)  $-5 + -5$

**3.** The factors of 12 are 1, 12, 2, 6, 3, 4 since they are whole numbers that multiply to make 12.

- a) List all the factors of 20.    b) List all the factors of 36.    c) List all the factors of 21.

**4. a)** What is the ratio of squares to triangles?

b) What is the ratio of triangles to total shapes?

c) What percent of the shapes are squares?

**5. a)** What is the ratio of camels to horses?

b) What is the ratio of camels to animals?

c) What percent of the animals are camels?

**6.** The first five multiples of 10 are 10, 20, 30, 40, 50. List the first five multiples of each number.

- a) 3    b) 8    c) 20

d) What is the lowest common multiple of 8 and 20?

**7.** Convert each improper fraction to a mixed number.

- a)  $\frac{11}{3}$     b)  $\frac{37}{5}$     c)  $\frac{27}{2}$     d)  $\frac{25}{10}$

**8.** Convert each mixed number to an improper fraction.

- a)  $3\frac{1}{4}$     b)  $5\frac{2}{3}$     c)  $6\frac{3}{5}$     d)  $9\frac{7}{10}$

Show your work for #9 - #12.

9. a)  $22^2$

b)  $6^3$

c)  $3^4$

d)  $10^6$

10. a)  $\frac{2}{3} + \frac{3}{5}$

b)  $\frac{7}{12} + \frac{3}{4}$

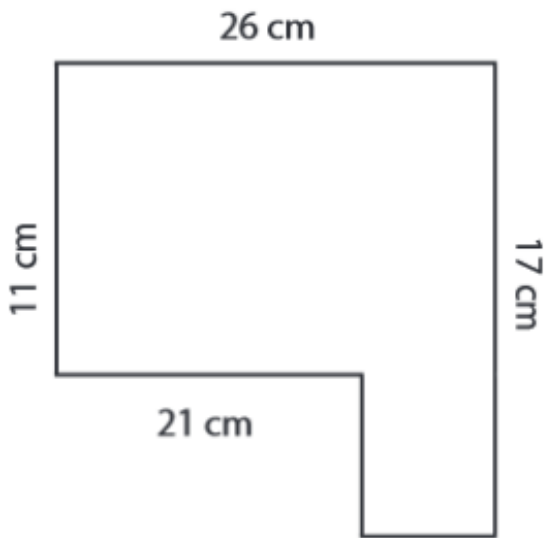
c)  $\frac{11}{12} - \frac{1}{3}$

d)  $\frac{5}{6} - \frac{3}{8}$

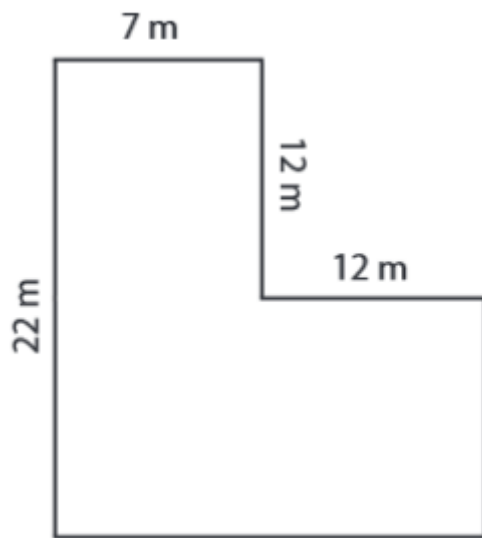
11. Which is greater,  $\frac{5}{6}$  or  $\frac{21}{24}$ ? Show why.

12. Find the area of each compound shape.

a)



b)



13. Melissa collected the dates of all her friends' birthdays. The bar graph below shows what she found out. Make a list of the months when her friends' birthdays occur *and* how many birthdays there are in each month.

