

# 6.1.1 Homework

Name: \_\_\_\_\_ Date: Jan 28 2020 Period: 6

6-6. Write the expression shown on each of the Expression Mats below. Then simplify them by making zeros and combining like terms.

a)

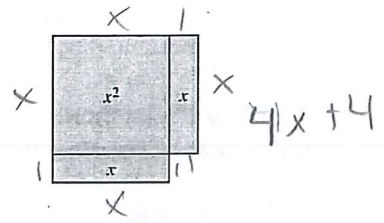
$x-x-3+1$   
 $-2$

b)

$2x^2 + 4x - x + 2 - 3$   
 $2x^2 + 3x + 1$

6-7. Which expressions are equivalent to the perimeter of the shape? How do you know?

- a)  $x + 3 + 3x + 1$
- b)  $2x + 4 + x$
- c)  $4x + 4$
- d)  $2x + 2 + 2x + 2$



6-8. Simplify the following expressions.

a)  $-\frac{3}{4} - \frac{2}{5} = -\frac{15}{20} - \frac{8}{20} = -\frac{23}{20}$

b)  $\frac{7}{8} - \frac{2}{3} = \frac{21}{24} - \frac{16}{24} = \frac{5}{24}$

c)  $\frac{1}{3} - \frac{5}{6} = \frac{2}{6} - \frac{5}{6} = -\frac{3}{6}$  or  $-\frac{1}{2}$

d)  $1\frac{2}{3} + (-\frac{2}{5}) = \frac{10}{5} - \frac{2}{5} = \frac{8}{5}$

e)  $\frac{4}{7} - (-\frac{3}{8}) = \frac{32}{56} + \frac{21}{56} = \frac{53}{56}$

f)  $-4\frac{1}{2} + 3\frac{1}{9} = -4\frac{9}{18} + 3\frac{2}{18} = -1\frac{7}{18}$

6-9. Desmond is rolling a standard six-sided number cube. He plans to roll it 72 times.

Result	Number of Outcomes
1	9
2	14
3	11
4	8

a) About how many times would you expect Desmond to roll a 4? Why?

6 sides 72 rolls

each 1 is  $\frac{12}{72}$  probability

$$\frac{12}{72}$$

b) About how many times would you expect him to roll an even number? Why?

$$\frac{12}{72} \times \frac{3}{1} = \frac{36}{72}$$

c) Desmond kept track of his results for all 72 rolls. The table at right shows some of his results. Based on his partial results, how many times did he roll a 5 or a 6?

$$\begin{array}{r} 214 \\ + 9 \\ 11 \\ 8 \\ \hline 42 \end{array} \quad \begin{array}{r} 72 \\ - 42 \\ \hline 30 \end{array}$$

30 times

6-10. In parts (a) through (c) below, you will see pairs of quantities. For each pair of quantities, use words to write a sentence that describes the relationship. For example, "\$5, \$8" could be, "\$8 is three more than \$5."

a) \$13, \$39  $\frac{39}{13} = 3$

\$39 is 26 more than \$13.

b) 25 feet, 17 feet

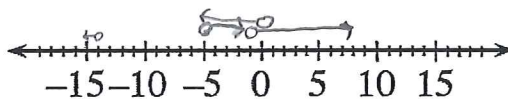
17 feet is 8 less than 25 feet.

c) 38 lbs., 19 lbs.

19 lbs multiplied by 2 is 38 lbs.

6-11. Use the number line to help you fill in < (less than) or > (greater than) on the blank line.

a)  $-5 < -2$



b)  $8 > -1$

c)  $-5 < 0$

d)  $-15 < -14$