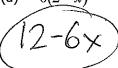
Algebra IA

Lesson 2.6 Divide Real Numbers

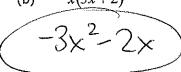
Warm-Up

Use the Distributive Property to simplify each of the following.

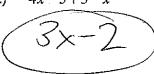
(a)
$$6(2-x)$$



(b)
$$-x(3x+2)$$



(c)
$$4x-5+3-x$$



(d)
$$(3x-2)4+x$$

Example 1. Find the Multiplicative Inverse

(a)
$$10$$

(b)
$$\frac{1}{7}$$
 (7)

(c)
$$-6$$
 $\left(-\frac{1}{6}\right)$

(d)
$$-\frac{5}{3}$$
 $(\frac{3}{5})$

(e)
$$\frac{2}{3}$$
 $\left(\frac{3}{2}\right)$

Inverse Property of Multiplication

$$a \cdot \frac{1}{a} = \frac{1}{a} \cdot a = 1$$
 (as long as $a \neq 0$)

 $\frac{1}{a}$ is called the **Multiplicative Inverse**

Example 2. Divide Real Numbers

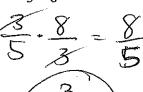
Find the quotient.

(a)
$$18 \div (-3)$$

(b)
$$-16 \div \left(-\frac{8}{3}\right)$$



(c) $\frac{3}{5} \div \frac{3}{8}$

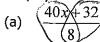


Example 3. Using Division to Find the Mean

The team scores for the Saline High School golf team are listed in the table at the right.



Example 4. Simplifying Algebraic Expressions with DivisionSimplify each of the following expressions by rewriting the fraction as division.



$$\frac{40x}{8} + \frac{32}{8}$$

$$5x + 4$$

(b)
$$(-6) + 18$$

Try It!

1. Find the mean daily minimum temperature for Saline based on the table at the right.

10+(-3)+(-5)	+6+5	+(-1)
/	43	

			-
The	Mean	DAILY	
MINIM	ium te	Meran	upe
	Sauw	_	ı

12 =	
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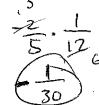
Day in	Temperature
January	(°F)
1	10
2	-3
3	-5
4	6
5	5
6	-1

Simplify each of the following.

2.
$$-32 \div (-4)$$



3.
$$-\frac{2}{5} \div 12$$



$$4. \qquad 18 \div \left(-\frac{2}{9}\right)$$

$$5. \quad \begin{array}{c} 2 \times 8 \\ \hline -\frac{1}{2} \times +2 \end{array}$$

$$6. \quad \underbrace{\begin{pmatrix} 6x & 14 \\ 2 \end{pmatrix}}$$

$$3 \times -7$$

7.
$$\frac{926}{-3}$$

Assignment: Page 106-107 (4 - 46) even

Review:

1.
$$12-9+7$$

2.
$$42 \div 6 + 8$$

3.
$$2(11-7) \div 3$$

4.
$$8 + (91 \div 13) \cdot \frac{4}{7}$$
 5. $\frac{3}{4} \cdot 8 - 6$

5.
$$\frac{3}{4} \cdot 8 - 6$$

6.
$$23 - [(12 \div 3)^2 + 8]$$

7.
$$11 \cdot (-5) + 20$$

8.
$$-8 \cdot (-9) - 80$$

9.
$$-16 + (-6) \cdot (-8)$$