

Name: _____



Date: _____

Notes

\Algebra Section 2.6

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Goal: "You will divide real numbers"

Division:

Think socks!



If your socks don't match, that's a negative!
If your socks match, that's a positive!

Negative ÷ Negative = Positive



Negative ÷ Positive = Negative



Positive ÷ Negative = Negative



Ex: $\frac{-12}{6} = -2$

Ex: $\frac{-8}{-2} = 4$

Ex: $-20 \div (-5) = 4$

Ex: $-\frac{3}{8} \div \frac{3}{10} = -1\frac{1}{4}$

Ex: $16 \div (-4) = -4$

Ex: $-3 \div -9 = \frac{3}{9} = \frac{1}{3}$

Try These: Use highlighters to make your socks.

$-35 \div 7 = -5$

$12 \div (-3) = -4$

$-18 \div (-6) = 3$

$-21 \div (-7) = 3$

$18 \div (-3) = -6$

$24 \div (-4) = -6$

$7 \div (-2) = -\frac{7}{2} = -3\frac{1}{2}$

$-4 \div (-8) = \frac{4}{8} = \frac{1}{2}$

$-\frac{3}{4} \div \left(-\frac{3}{8}\right) = 2$

Finding the Mean:

Example: The table gives the daily minimum temperatures (in degrees Fahrenheit) in Barrow, Alaska, for the first 5 days of February 2004. Find the mean daily minimum temperature.

Day in February	1	2	3	4	5
Minimum Temperature (F°)	-21	-29	-39	-39	-22

$$\text{Mean: } \frac{-21+(-29)+(-39)+(-39)+(-22)}{5} = \frac{-150}{5} = -30^{\circ}\text{F}$$

Try This:

Find the mean maximum temperature (in degrees Fahrenheit) in Barrow, Alaska, for the first 5 days of February 2004.

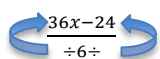
Day in February	1	2	3	4	5
Maximum Temperature (F°)	-3	-20	-21	-22	-18

$$-16.8^{\circ}\text{F}$$

Simplifying an Expression (Division):

$$\text{Example: } \frac{36x-24}{6} = \frac{1}{6}(36x - 24) = 6x - 4$$

*Note: Each term in the numerator is divided by the denominator.


$$\frac{36x-24}{\div 6 \div}$$

Try These:

$$\frac{20x+15}{5}$$

$$4x + 3$$

$$\frac{12x-8}{-4}$$

$$-3x + 2$$

$$\frac{-6y+18}{3}$$

$$-2y + 6$$

$$\frac{-10z-20}{-5}$$

$$2z + 4$$

$$\frac{33x+15}{3}$$

$$11x + 5$$

$$\frac{20x-8}{-4}$$

$$-5x + 2$$

$$\frac{-27y+9}{3}$$

$$-9y + 3$$

$$\frac{-18z+30}{-6}$$

$$3z - 5$$