

Add/Subtracting Fractions and Mixed Numbers

Date _____ Period _____

Evaluate each expression.

1) $\frac{5}{4} - \frac{3}{4}$

$$\frac{1}{2}$$

2) $\frac{3}{2} - \frac{1}{2}$

$$1$$

3) $\frac{2}{5} + \frac{4}{5}$

$$\frac{6}{5}$$

4) $\frac{1}{3} - \frac{1}{3}$

$$0$$

5) $6 - \frac{1}{6}$

$$\frac{35}{6}$$

6) $\frac{1}{2} - \frac{1}{2}$

$$0$$

7) $\frac{1}{5} + \frac{1}{5}$

$$\frac{2}{5}$$

8) $\frac{7}{6} - \frac{5}{6}$

$$\frac{1}{3}$$

9) $\left(-\frac{4}{5}\right) - \frac{7}{8}$

$$-\frac{67}{40}$$

10) $\frac{1}{3} - \left(-\frac{5}{3}\right)$

$$2$$

11) $\left(-\frac{1}{3}\right) + \frac{3}{8}$

$$\frac{1}{24}$$

12) $\left(-\frac{10}{7}\right) + \frac{1}{6}$

$$-\frac{53}{42}$$

13) $\frac{9}{5} + \left(-\frac{4}{3}\right)$

$$\frac{7}{15}$$

14) $2 - \frac{13}{8}$

$$\frac{3}{8}$$

Multiplying/Dividing Fractions and Mixed Numbers

Date _____ Period _____

Find each product.

$$1) -\frac{5}{4} \cdot \frac{1}{3}$$
$$-\frac{5}{12}$$

$$2) \frac{8}{7} \cdot \frac{7}{10}$$
$$\frac{4}{5}$$

$$3) \frac{4}{9} \cdot \frac{7}{4}$$
$$\frac{7}{9}$$

$$4) -\frac{2}{3} \cdot \frac{5}{4}$$
$$-\frac{5}{6}$$

$$5) -2 \cdot \frac{3}{7}$$
$$-\frac{6}{7}$$

$$6) -2\frac{2}{3} \cdot 4\frac{1}{10}$$
$$-10\frac{14}{15}$$

$$7) -2\frac{1}{5} \cdot -1\frac{3}{4}$$
$$3\frac{17}{20}$$

$$8) -1\frac{1}{4} \cdot 9$$
$$-11\frac{1}{4}$$

$$9) -1\frac{5}{7} \cdot -2\frac{1}{2}$$
$$4\frac{2}{7}$$

$$10) -2\frac{3}{8} \cdot 2\frac{1}{2}$$
$$-5\frac{15}{16}$$

Find each quotient.

$$11) \frac{-1}{5} \div \frac{7}{4}$$
$$-\frac{4}{35}$$

$$12) \frac{-1}{2} \div \frac{5}{4}$$
$$-\frac{2}{5}$$

$$13) \frac{-3}{2} \div \frac{-10}{7}$$
$$\frac{21}{20}$$

$$14) \frac{1}{2} \div \frac{8}{7}$$
$$\frac{7}{16}$$

$$15) \frac{-9}{5} \div 2$$
$$-\frac{9}{10}$$

$$16) -3\frac{5}{9} \div 3$$
$$-1\frac{5}{27}$$

$$17) -2 \div -3\frac{4}{5}$$
$$\frac{10}{19}$$

$$18) \frac{1}{9} \div -1\frac{1}{3}$$
$$-\frac{1}{12}$$

$$19) 1\frac{6}{7} \div 5\frac{3}{4}$$
$$\frac{52}{161}$$

$$20) -3\frac{7}{10} \div 2\frac{1}{4}$$
$$-1\frac{29}{45}$$

Adding and Subtracting Positive and Negative Numbers Date _____ Period _____

Evaluate each expression.

1) $(-2) + 3$

1

2) $(-14) + (-7)$

-21

3) $3 - (-8)$

11

4) $(-9) + 14$

5

5) $(-8) - (-2)$

-6

6) $5 + (-8)$

-3

7) $(-27) - 24$

-51

8) $(-41) + (-40)$

-81

9) $38 - (-17)$

55

10) $(-44) + (-9)$

-53

11) $(-16) - (-36)$

20

12) $(-6) - 24$

-30

13) $(-16) - 6 + (-5)$

-27

14) $15 - 13 + 2$

4

15) $16 - (-13) - (-5)$

34

16) $(-7) - (-2) - 9$

-14

Order of Operations

Evaluate each expression.

1) $(30 - 3) \div 3$

9

2) $(21 - 5) \div 8$

2

3) $1 + 7^2$

50

4) $5 \times 4 - 8$

12

5) $8 + 6 \times 9$

62

6) $3 + 17 \times 5$

88

7) $7 + 12 \times 11$

139

8) $15 + 40 \div 20$

17

9) $20 + 16 - 15$

21

10) $19 - 15 - 3$

1

11) $9 \times (3 + 3) \div 6$

9

12) $(9 + 18 - 3) \div 8$

3

13) $9 + 6 \div (8 - 2)$

10

14) $4(4 \div 2 + 4)$

24

15) $6 + (5 + 8) \times 4$

58

16) $6 \times 6 - (7 + 5)$

24

17) $(9 \times 2) \div (2 + 1)$

6

18) $2 - (4 + 3 - 6)$

1

19) $7 \times 7 - (8 - 2)$

43

20) $9 - 7 - 6 \div 6$

1

21) $(4 - 1 + 8 \div 8) \times 5$

20

22) $(10 \times 2) \div (1 + 1)$

10

23) $7 \times 9 - 7 - 3 \times 5$

41

24) $8 - 1 - (18 - 2) \div 8$

5

Combining Like Terms

Simplify each expression.

1) $-6k + 7k$

k

2) $12r - 8 - 12$

$12r - 20$

3) $n - 10 + 9n - 3$

$10n - 13$

4) $-4x - 10x$

$-14x$

5) $-r - 10r$

$-11r$

6) $-2x + 11 + 6x$

$4x + 11$

7) $11r - 12r$

$-r$

8) $-v + 12v$

$11v$

9) $-8x - 11x$

$-19x$

10) $4p + 2p$

$6p$

11) $5n + 11n$

$16n$

12) $n + 4 - 9 - 5n$

$-4n - 5$

13) $12r + 5 + 3r - 5$

$15r$

14) $-5 + 9n + 6$

$1 + 9n$

$$15) \ n - 4 - 9$$

$$n - 13$$

$$16) \ 4n - n$$

$$3n$$

$$17) \ -3x - 9 + 15x$$

$$12x - 9$$

$$18) \ -9k + 8k$$

$$-k$$

$$19) \ -16n - 14n$$

$$-30n$$

$$20) \ 15n - 19n$$

$$-4n$$

$$21) \ -4 + 7(1 - 3m)$$

$$3 - 21m$$

$$22) \ -5n + 3(6 + 7n)$$

$$16n + 18$$

$$23) \ -2n - (9 - 10n)$$

$$8n - 9$$

$$24) \ 10 - 5(9n - 9)$$

$$55 - 45n$$

$$25) \ 9a + 10(6a - 1)$$

$$69a - 10$$

$$26) \ -9(6m - 3) + 6(1 + 4m)$$

$$-30m + 33$$

$$27) \ -10(1 - 9x) + 6(x - 10)$$

$$-70 + 96x$$

$$28) \ 5(-2n + 4) + 2(n + 3)$$

$$-8n + 26$$

$$29) \ -3(10b + 10) + 5(b + 2)$$

$$-25b - 20$$

$$30) \ -7(n + 3) - 8(1 + 8n)$$

$$-71n - 29$$

One-Step Equations With Integers

Solve each equation.

1) $v - 10 = -9$

{1}

2) $v - 10 = -3$

{7}

3) $x - 3 = 4$

{7}

4) $\frac{x}{5} = 2$

{10}

5) $22 = -11k$

{-2}

6) $-13m = -377$

{29}

7) $b - 7 = -1$

{6}

8) $-8 = p - 13$

{5}

9) $-40 = -5p$

{8}

10) $418 = -22a$

{-19}

11) $\frac{a}{29} = 5$

{145}

12) $-2 = \frac{m}{16}$

{-32}

13) $x - 11 = 16$

{27}

14) $-10 = x - 21$

{11}

$$15) 20 = \frac{n}{4}$$
$$\{80\}$$

$$16) n - 29 = -53$$
$$\{-24\}$$

$$17) -19 = b - 6$$
$$\{-13\}$$

$$18) -8 = -16 + n$$
$$\{8\}$$

$$19) -9 + x = -26$$
$$\{-17\}$$

$$20) 29 + n = 13$$
$$\{-16\}$$

$$21) 21 = \frac{x}{18}$$
$$\{378\}$$

$$22) k + 1 = -27$$
$$\{-28\}$$

$$23) 6 = m - 16$$
$$\{22\}$$

$$24) 5 = v + 29$$
$$\{-24\}$$

$$25) 168 = -84n$$
$$\{-2\}$$

$$26) 41k = -2747$$
$$\{-67\}$$

$$27) \frac{x}{15} = 11$$
$$\{165\}$$

$$28) -71 = \frac{x}{64}$$
$$\{-4544\}$$

One-Step Equation Word Problems

- 1) Lisa is cooking muffins. The recipe calls for 7 cups of sugar. She has already put in 2 cups. How many more cups does she need to put in?

5

- 2) At a restaurant, Mike and his three friends decided to divide the bill evenly. If each person paid \$13 then what was the total bill?

\$52

- 3) How many packages of diapers can you buy with \$40 if one package costs \$8?

5

- 4) Last Friday Trevon had \$29. Over the weekend he received some money for cleaning the attic. He now has \$41. How much money did he receive?

\$12

- 5) Last week Julia ran 30 miles more than Pranav. Julia ran 47 miles. How many miles did Pranav run?

17

- 6) How many boxes of envelopes can you buy with \$12 if one box costs \$3?

4

- 7) Amanda and her best friend found some money buried in a field. They split the money evenly, each getting \$24.28. How much money did they find?

\$48.56

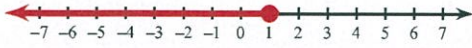
- 8) Jenny wants to buy an MP3 player that costs \$30.98. How much change does she receive if she gives the cashier \$40?

\$9.02

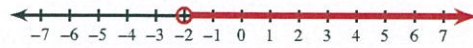
Inequalities and Their Graphs

Draw a graph for each inequality.

1) $x \leq 1$



2) $m > -2$



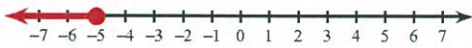
3) $x \leq 4$



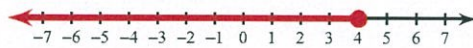
4) $m > -6$



5) $-5 \geq a$



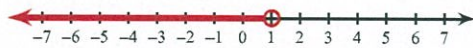
6) $4 \geq x$



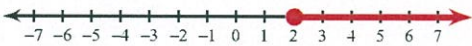
7) $-2 < b$



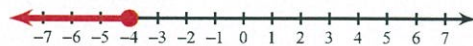
8) $1 > x$



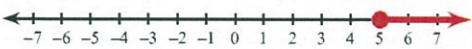
9) $-r \leq -2$



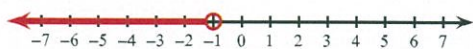
10) $4 \leq -n$



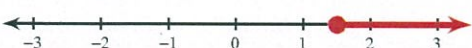
11) $-n \leq -5$



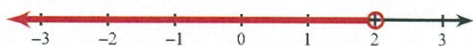
12) $1 < -x$



13) $n \geq \frac{3}{2}$



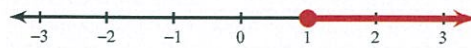
14) $k < 2$



15) $p \geq -1\frac{1}{2}$



16) $n \geq 1$



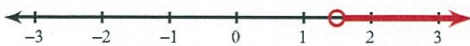
17) $x \geq -2$



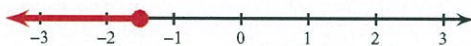
18) $-2\frac{1}{2} \leq n$



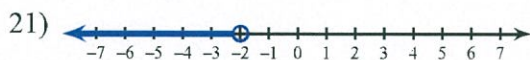
19) $-1\frac{1}{2} > -n$



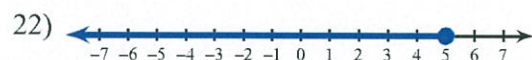
20) $-1\frac{1}{2} \geq v$



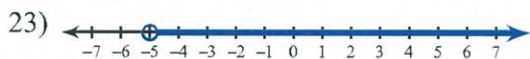
Write an inequality for each graph.



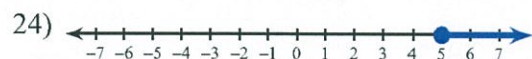
$a < -2$



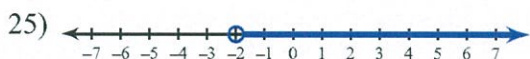
$x \leq 5$



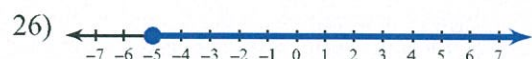
$b > -5$



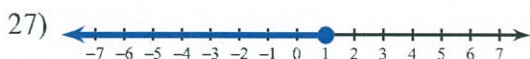
$x \geq 5$



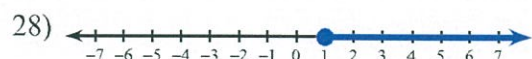
$b > -2$



$a \geq -5$



$x \leq 1$

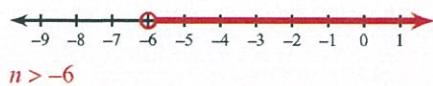


$x \geq 1$

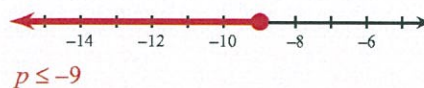
Solving Two-Step Inequalities

Solve each inequality and graph its solution.

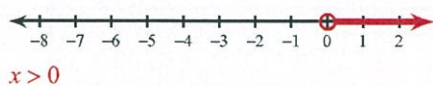
1) $\frac{n}{3} + 2 > 0$



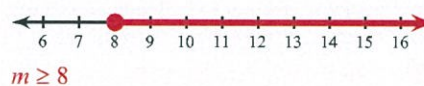
2) $\frac{p}{9} - 1 \leq -2$



3) $\frac{x}{1} + 5 > 5$



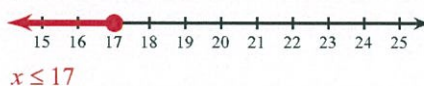
4) $\frac{1+m}{9} \geq 1$



5) $-2r - 2 \leq 4$



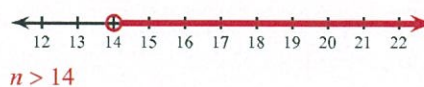
6) $8x + 2 \leq 138$



7) $3 + \frac{b}{9} < 4$



8) $9 + \frac{n}{2} > 16$



Proportions

Date _____ Period _____

State if each pair of ratios forms a proportion.

1) $\frac{4}{2}$ and $\frac{20}{6}$

No

2) $\frac{3}{2}$ and $\frac{18}{8}$

No

3) $\frac{4}{3}$ and $\frac{16}{12}$

Yes

4) $\frac{4}{3}$ and $\frac{8}{6}$

Yes

5) $\frac{12}{24}$ and $\frac{3}{4}$

No

6) $\frac{6}{9}$ and $\frac{2}{3}$

Yes

Solve each proportion.

7) $\frac{10}{k} = \frac{8}{4}$

{5}

8) $\frac{m}{10} = \frac{10}{3}$

{33.33}

9) $\frac{2}{x} = \frac{7}{9}$

{2.57}

10) $\frac{3}{x} = \frac{7}{10}$

{4.28}

$$11) \frac{4}{9} = \frac{2}{x}$$

{4.5}

$$12) \frac{6}{a} = \frac{3}{8}$$

{16}

$$13) \frac{8n}{8} = \frac{8}{3}$$

{2.66}

$$14) \frac{7}{9} = \frac{a}{5}$$

{3.88}

$$15) \frac{p}{8} = \frac{13}{2}$$

{52}

$$16) \frac{3}{13} = \frac{v}{3}$$

{0.69}

$$17) \frac{10}{12} = \frac{2}{n}$$

{2.4}

$$18) \frac{11}{10} = \frac{r}{11}$$

{12.1}

$$19) \frac{x}{9} = \frac{7}{14}$$

{4.5}

$$20) \frac{a}{10} = \frac{11}{14}$$

{7.85}

$$21) \frac{v}{12} = \frac{10}{2}$$

{60}

$$22) \frac{6}{14} = \frac{5}{n}$$

{11.66}

Proportion Word Problems

Answer each question and round your answer to the nearest whole number.

- 1) If you can buy one can of pineapple chunks for \$2 then how many can you buy with \$10?

5

- 2) One jar of crushed ginger costs \$2. How many jars can you buy for \$4?

2

- 3) One cantaloupe costs \$2. How many cantaloupes can you buy for \$6?

3

- 4) One package of blueberries costs \$3. How many packages of blueberries can you buy for \$9?

3

- 5) Shawna reduced the size of a rectangle to a height of 2 in. What is the new width if it was originally 24 in wide and 12 in tall?

4 in

- 6) Ming was planning a trip to Western Samoa. Before going, she did some research and learned that the exchange rate is 6 Tala for \$2. How many Tala would she get if she exchanged \$6?

18 Tala

- 7) Jasmine bought 32 kiwi fruit for \$16. How many kiwi can Lisa buy if she has \$4?

8

- 8) If you can buy four bulbs of elephant garlic for \$8 then how many can you buy with \$32?

16

- 9) One bunch of seedless black grapes costs \$2. How many bunches can you buy for \$20?

10

- 10) The money used in Jordan is called the Dinar. The exchange rate is \$3 to 2 Dinars. Find how many dollars you would receive if you exchanged 22 Dinars.

\$33