

## Warm-up: Fractions

**Evaluate each expression.**

1)  $-\frac{5}{4} + -\frac{6}{5}$

2)  $2 - \frac{8}{3}$

3)  $-\frac{9}{4} - \frac{5}{2}$

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

**Find each product.**

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

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

**Find each quotient.**

7)  $4 \div \frac{-9}{10}$

8)  $\frac{-3}{2} \div \frac{9}{7}$

## HW #13: Fractions!

Solve each equation.

1)  $0 = \frac{6+n}{9}$

2)  $4 = \frac{r}{3} + 9$

3)  $\frac{4x}{3} - 5 = 10$

4)  $6 - \frac{2x}{3} - 7 = -1$

5)  $\frac{1}{3} - 4x = \frac{x}{6} - 2$

6)  $2(x-4) = \frac{2x}{3} - 5$

$$7) \frac{2x}{5} - 3 = \frac{1}{10} - x$$

$$8) \frac{x}{3} - 2 = \frac{3x}{4} + 1$$

$$9) -4a - (1 - 8a) = 4a - 1$$

$$10) x - 2 = \frac{x}{2} - 2$$

**Simplify each expression.**

$$11) 10x + 7 + 7 - 2x$$

$$12) -4(1 - 6p)$$

$$13) 2 - 4(-10n - 1)$$

$$14) 4x^2 - 3x + 10 - 2x^2 - 3x - 10$$

## Operations with Fractions (A)

Calculate the answer to each question.

1.  $\frac{48}{19} - \left(-\frac{31}{11}\right)$

2.  $\frac{1}{2} - \left(-\frac{15}{8}\right)$

3.  $\frac{11}{10} \div \frac{1}{2}$

4.  $\frac{16}{15} \times \frac{18}{11}$

5.  $\frac{13}{11} - \left(-\frac{1}{7}\right)$

6.  $\left(-\frac{3}{7}\right) \div \left(-\frac{14}{11}\right)$

7.  $\left(-\frac{1}{2}\right) \times \frac{20}{7}$

8.  $\frac{11}{5} + \frac{1}{11}$

9.  $\left(-\frac{5}{9}\right) + \frac{5}{6}$

10.  $\left(-\frac{36}{19}\right) + \left(-\frac{45}{19}\right)$

## Operations with Fractions (A)

Calculate the answer to each question.

1.  $\left(-\frac{11}{19}\right) - \frac{35}{16} + \left(-\frac{1}{6}\right)$

2.  $\frac{16}{19} - \frac{14}{9} + \left(-\frac{19}{12}\right)$

3.  $\left(-\frac{24}{19}\right) - \left(-\frac{3}{5}\right) - \left(-\frac{3}{4}\right)$

4.  $\frac{11}{14} + \left(-\frac{53}{20}\right) - \frac{7}{19}$

5.  $\frac{16}{19} + \frac{1}{2} + \frac{5}{19}$

6.  $\frac{31}{12} \times \frac{15}{13} \times \left(-\frac{10}{9}\right)$

7.  $\left(-\frac{26}{17}\right) \times \left(-\frac{7}{10}\right) \div \frac{5}{3}$

8.  $\left(-\frac{23}{12}\right) + \left(-\frac{12}{5}\right) + \frac{11}{6}$

9.  $\left(-\frac{11}{10}\right) \div \left(-\frac{1}{4}\right) \times \left(-\frac{40}{19}\right)$

10.  $\left(-\frac{5}{2}\right) \div \frac{13}{7} \times \frac{9}{7}$

## Warm-up: Combining Like Terms

Simplify each expression.

1)  $5 - 4r - 8$

2)  $2n + 9 + 7 - n$

3)  $-4(b + 4)$

4)  $2(x + 6)$

5)  $-10 - (-4x - 5)$

6)  $4 + 4(1 - 5x)$

7)  $7(3n + 8) + 4(4n - 8)$

8)  $-10(2 + 2k) - 5(k - 10)$

Find each product.

$$9) \frac{5}{8} \cdot -\frac{19}{10}$$

$$10) 2 \cdot -\frac{5}{4}$$

$$11) -7 \cdot -\frac{4}{3}$$

$$12) -2 \cdot \frac{1}{2}$$

Solve the following equations.

$$13) \frac{3x}{2} + 4 = 10$$

$$14) 4 - \frac{5x}{2} = 0$$

## HW #5: Combining Like Terms

Simplify each expression.

1)  $8x + 5x$

2)  $1 - 8v + 3v + 6$

3)  $1 + 3k + 1 - 7k$

4)  $-6 + 2x - 9$

5)  $x + 2 - x$

6)  $-4n - 7n$

7)  $3x - 4y + 6 - 2x + 6y$

8)  $3x^2 + 4x - 5 - 6x^2 + 7x - 10$

9)  $4xy + 3x - 2xy + 5y$

10)  $-4x^2 + 3y + 5y^2 + 1$



**Simplify each expression.**

11)  $-3(1 + 10n)$

12)  $9(10m + 3)$

13)  $-10 + 7(-10 - 8a)$

14)  $1 - 9(2 + 6x)$

15)  $-5 - 7(1 + x)$

16)  $-8(-6 + 8r) + 4r$

**Evaluate each expression. No mixed numbers.**

17)  $-\frac{9}{5} + \frac{5}{2}$

18)  $-1 - \frac{3}{4}$

19)  $\frac{-13}{7} \div -10$

20)  $\frac{1}{8} \cdot -\frac{4}{3}$

**Simplify the following.**

21)  $2 - 4(5 + 2^2)$

22) Evaluate  $3x^2 - 4x + 5$  if  $x = -2$

## Combining Like Terms

Simplify each expression.

1)  $-6k + 7k$

2)  $12r - 8 - 12$

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

4)  $-4x - 10x$

5)  $-r - 10r$

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

7)  $11r - 12r$

8)  $-v + 12v$

9)  $-8x - 11x$

10)  $4p + 2p$

11)  $5n + 11n$

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

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

14)  $-5 + 9n + 6$

$$15) n - 4 - 9$$

$$16) 4n - n$$

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

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

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

$$20) 15n - 19n$$

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

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

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

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

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

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

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

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

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

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

## Pre Algebra Quiz Review

Evaluate each expression.

1)  $1 - 2$

2)  $7 + (-2)$

3)  $(-2) - (-8)$

4)  $(-6) - 5$

5)  $\frac{9}{-9}$

6)  $\frac{40}{-4}$

7)  $\frac{15}{5}$

8)  $\frac{-9}{-1}$

9)  $7 \cdot -9$

10)  $8 \cdot -8$

11)  $-7 \cdot -7$

12)  $10 \cdot -5$

**Simplify the following.**

13)  $5 - 2^2 \div 4$

14)  $6 - 3(4 - 6) + 2^3$

15)  $4 - (2 + 3^2) \div (5 - 2^2)$

16)  $\frac{6 - (5 - 9)^2 + 5}{4 + 3 \cdot 2^2 + 1}$

**Evaluate each of the following expressions for the indicated value.**

17)  $3(x + 5)^2$  if  $x = 2$

18)  $2x^2 - 5x + 6$  if  $x = -3$

19)  $4x + 6y$  if  $x = 0$  and  $y = -2$

20)  $\frac{3x^2 + 4}{5 - y^2}$  if  $x = 2$  and  $y = -1$

**Evaluate each expression.**

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

22)  $-\frac{7}{6} - -\frac{10}{3}$

$$23) -2 + \frac{19}{5}$$

$$24) \frac{5}{4} - \frac{23}{6}$$

Find each quotient.

$$25) -\frac{7}{2} \div -\frac{8}{3}$$

$$26) \frac{9}{5} \div \frac{-8}{5}$$

$$27) \frac{1}{7} \div 2$$

$$28) \frac{7}{5} \div \frac{5}{3}$$

Find each product. Simplify your final answer as much as possible.

$$29) \frac{1}{2} \cdot -\frac{4}{3}$$

$$30) -7 \cdot \frac{1}{2}$$

$$31) \frac{3}{7} \cdot -\frac{3}{4}$$

$$32) \frac{11}{8} \cdot -\frac{10}{9}$$

**Simplify each expression.**

33)  $3b - 7b$

34)  $2 - 9v + v - 8$

35)  $-6x + 8 + 7 + 7x$

36)  $3 - 5x + 4$

37)  $4x^2 - 5x + 10x^2 + x$

38)  $7y^2 - 5x^2 + 8x - 9y^2 + 5x^2$

**Simplify the following fractions as much as possible.**

39)  $\frac{6}{9}$

40)  $\frac{12}{4}$

41)  $\frac{11}{17}$

42)  $\frac{48}{14}$

43)  $\frac{0}{5}$

44)  $\frac{8}{48}$

