

Summer Packet

Date _____ Period _____

This summer packet is due the first week of school. Your teacher will inform you of the specific due date. Please follow these directions:

Print the summer packet and show your work on PAPER.

You must show all your work in order to get full credit.

Answers only will not receive credit.

You will get a grade for completing the packet.

Simplify each expression.

1) $-3m - 10m$

A) $-13m$

B) $-8m - 4$

C) $-10m$

D) $-9m$

2) $1 - v - 7 + 5v$

A) $-11v$

B) $-10v$

C) $2v + 6$

D) $-6 + 4v$

3) $3(4 - 2x) - 7$

A) $5 - 6x$

B) $14x - 30x^2$

C) $-8x - 1$

D) $17x - 30x^2$

4) $10p(-2p + 5) + 6p$

A) $78 - 80p$

B) $-84p + 50$

C) $-20p^2 + 56p$

D) $78 - 81p$

Evaluate each using the values given.

5) $p(q + 3)$; use $p = 6$, and $q = 6$

A) 50

B) 56

C) 60

D) 54

6) $q + p - q$; use $p = 6$, and $q = 6$

A) 1

B) 5

C) 6

D) 12

7) $p - (6 + q - p)$; use $p = 5$, and $q = 3$

A) 1

B) 2

C) 3

D) 0

8) $y - (x - x) + x$; use $x = 2$, and $y = 3$

A) 4

B) 8

C) 7

D) 5

Solve each equation.

9) $-4 + x = 10$

A) $\left\{-\frac{5}{2}\right\}$

B) $\{14\}$

C) $\{-40\}$

D) $\{6\}$

10) $6 = r - 14$

A) $\{-8\}$

B) $\{84\}$

C) $\{20\}$

D) $\left\{\frac{3}{7}\right\}$

$$11) -19 = \frac{n}{17}$$

- A) $\{-36\}$ B) $\{-323\}$
 C) $\{-2\}$ D) $\left\{-\frac{19}{17}\right\}$

$$12) -108 = 6v$$

- A) $\{9\}$ B) $\{10\}$
 C) $\{-18\}$ D) $\{6\}$

$$13) 6 = -9 - x$$

- A) $\{-15\}$ B) $\{-3\}$
 C) $\{15\}$ D) $\left\{-\frac{2}{3}\right\}$

$$14) 2 = -15 - x$$

- A) $\left\{-\frac{2}{15}\right\}$ B) $\{-17\}$
 C) $\{-13\}$ D) $\{17\}$

$$15) 5 = 1 - 8v + 4v$$

- A) $\{\text{All real numbers.}\}$
 B) $\{-1\}$
 C) $\{-6\}$
 D) $\{16\}$

$$16) -1 = p - 8 + 6p$$

- A) $\{16\}$ B) $\{10\}$
 C) $\{-1\}$ D) $\{1\}$

$$17) -116 = 3(2x - 4) + 7x$$

- A) $\{3\}$ B) No solution.
 C) $\{-8\}$ D) $\{0\}$

$$18) 90 = 2(-3 - 6r)$$

- A) $\{-8\}$ B) $\{10\}$
 C) $\{-10\}$ D) $\{15\}$

$$19) -10 + 5x = -4(2 + 2x) - 2$$

- A) No solution. B) $\{-3\}$
 C) $\{0\}$ D) $\{-4\}$

$$20) 4 - x = -(x + 2) + 6$$

- A) $\{1\}$ B) $\{-5\}$
 C) $\{6\}$ D) $\{\text{All real numbers.}\}$

Solve each proportion.

$$21) \frac{4}{7} = \frac{x}{8}$$

- A) $\{4.57\}$ B) $\{9.473\}$
 C) $\{8.3\}$ D) $\{4.7\}$

$$22) \frac{v}{7} = \frac{4}{10}$$

- A) $\{10\}$ B) $\{8\}$
 C) $\{2.8\}$ D) $\{9\}$

$$23) \frac{2}{10} = \frac{6}{x - 10}$$

- A) $\{-5.3\}$ B) $\{40\}$
 C) $\{3.7\}$ D) $\{4.6\}$

$$24) \frac{9}{6} = \frac{x + 4}{8}$$

- A) $\{-8\}$ B) $\{5.1\}$
 C) $\{4\}$ D) $\{8\}$

Solve each equation.

25) $32 = -2p - 2$

- A) $\{-10\}$ B) $\{-5\}$
C) $\{18\}$ D) $\{-17\}$

26) $\frac{x-9}{26} = -1$

- A) $\{-17\}$ B) $\{-8\}$
C) $\{1\}$ D) $\{12\}$

Simplify. Your answer should contain only positive exponents.

27) $3b^3 \cdot -4b^{-3}$

- A) $-4b$ B) $-\frac{8}{b^4}$
C) -12 D) $\frac{6}{b^2}$

28) $2r^3 \cdot r^2$

- A) $-4r^4$ B) $2r^5$
C) $6r^2$ D) $-6r$

29) $(-3x^2)^3$

- A) $-27x^6$ B) x^6
C) $16x^{16}$ D) $\frac{1}{x^8}$

30) $(-2x^{-3})^2$

- A) $-\frac{1}{x^3}$ B) $\frac{x^4}{81}$
C) $81x^{12}$ D) $\frac{4}{x^6}$

31) $\frac{y^4 \cdot 4x^2}{x^{-4}}$

- A) $4x^6y^4$ B) $\frac{3y^8}{8x^3}$
C) 1 D) $\frac{2}{9y^4x^4}$

Evaluate each expression.

32) $5 - (-8)$

- A) 10 B) 13
C) 20 D) 9

33) $1 - 4$

- A) -4 B) -3
C) -7 D) -6

34) $1 + 8 - 4$

- A) 11 B) 0
C) 13 D) 5

35) $8 - 1 - 8$

- A) -4 B) -9
C) -1 D) -7

Find each quotient.

36) $\frac{27}{9}$

- A) -3 B) -243
C) 3 D) -8

37) $\frac{4}{2}$

- A) -7 B) -6
C) 2 D) -2

Find each product.

38) $(-2)(-10)$

- A) 20 B) 11
C) 21 D) 12

39) $(-8)(-7)(-4)$

- A) -220 B) -216
C) -19 D) -224

Evaluate each expression.

40) $16 \div (6 - 2)$

- A) 4 B) 9
C) 10 D) 3

41) $2 + 6 + 2 \times 5$

- A) 18 B) 17
C) 21 D) 12

42) $(2 \times 2) \div (2 + 1 - 1)$

- A) 7 B) 2
C) 8 D) 5

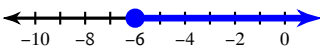
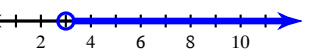
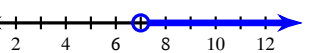
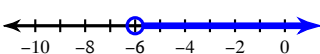
Solve each problem.

43) 57 is what percent of 80?

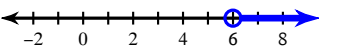
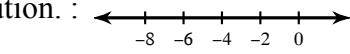
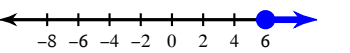
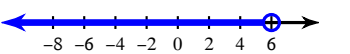
- A) 71.3% B) 1.4%
C) 0.71% D) 140.4%

Solve each inequality and graph its solution.

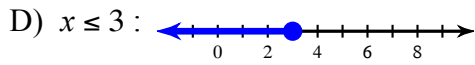
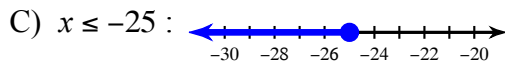
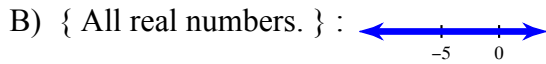
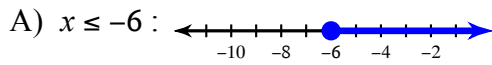
44) $5x - 2 - 6 > 7$

- A) $x > -6$: 
B) $x > 3$: 
C) $x > 7$: 
D) $x > -6$: 

45) $-2(7k + 7) < -98$

- A) $k > 6$: 
B) No solution. : 
C) $k < 6$: 
D) $k < 6$: 

46) $-2(-3x - 5) \geq 7 + 7x$



Find the slope of the line through each pair of points.

47) $(10, -4), (0, -16)$

A) $-\frac{6}{5}$ B) $\frac{6}{5}$

C) $-\frac{5}{6}$ D) $\frac{5}{6}$

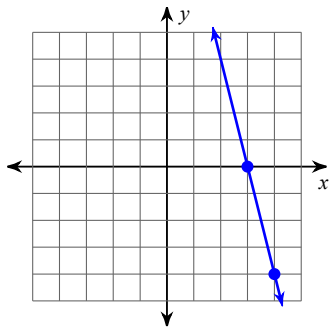
48) $(-13, -4), (0, -16)$

A) $\frac{12}{13}$ B) $\frac{13}{12}$

C) $-\frac{12}{13}$ D) $-\frac{13}{12}$

Find the slope of each line.

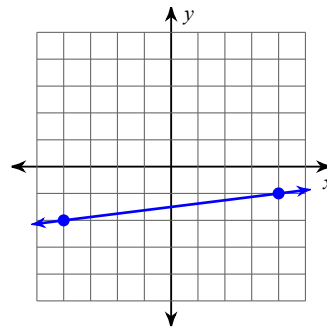
49)



A) -4 B) $\frac{1}{4}$

C) $-\frac{1}{4}$ D) 4

50)



A) $\frac{1}{8}$ B) -8

C) $-\frac{1}{8}$ D) 8