

**Algebra I Summer Review Packet (no calculators)****Adding and Subtracting integers and decimals. (no calculators)**

1)  $60 - 100 + (-86)$

2)  $88 - (-22) - 95$

3)  $(-14.6) - 2.7 - (-13.1)$

4)  $9.1 + (-15.3) - (-9.932)$

**Evaluate each expression. Use order of operations. (no calculators)**

5)  $(2 \times 6 - 1) \times 3$

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

7)  $2 \times 5 \times 3 - 4$

8)  $(6 \times 2) \div 3$

9)  $(10 \times 2) \div (2 \times 2)$

10)  $2.4 \times 2.5(5.5 + 1.8)$

**Fraction Review: Simplify each expression. (no calculators)**

11)  $6\frac{7}{9} \div \frac{1}{2}$

12)  $3\frac{3}{4} \times -3\frac{2}{3}$

13)  $2\frac{1}{7} + \left(-\frac{3}{4}\right)$

14)  $\left(-3\frac{2}{3}\right) - \frac{9}{5}$

15)  $(-3) + \left(-\frac{5}{8}\right)$

16)  $(-6) + \frac{5}{7}$

17)  $2\frac{1}{3} - \frac{1}{4} \div \frac{2}{5}$

18)  $2\frac{1}{6} \times \frac{5}{6} \div 3\frac{3}{4}$

**Solving Equations: Solve each equation given and check your solution. (no calculators)**

19)  $-216 = 9x$

20)  $\frac{n-6}{2} = -3$

21)  $-9x + 2 = -43$

22)  $-3 + \frac{k}{2} = -7$

23)  $-3k + 2 = -22$

24)  $-105 = -5(-7 - 4k)$

25) Write and Solve an equation.

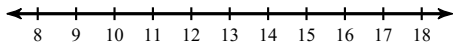
Molly won 41 pieces of gum playing basketball at the county fair. At school she gave three to every student in her math class. She only has 2 remaining. How many students are in her class?

26) Write and solve an equation.

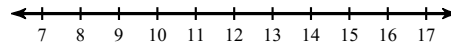
Emily spent half of her weekly allowance on candy. To earn more money her parents let her wash the car for \$10. What is her weekly allowance if she ended with \$15?

**Solving Inequalities: Solve each inequality and graph its solution.**

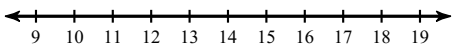
27)  $2 > \frac{x}{8}$



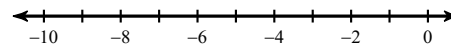
28)  $12k \geq 120$



29)  $2 < \frac{-7 + x}{3}$



30)  $-3x - 10 \geq -4$



**Greatest Common Factors: Find the greatest common factor of each.**

31) 80, 72

32) 76, 38

33)  $45u^2, 63u^2$

34)  $28y, 42$

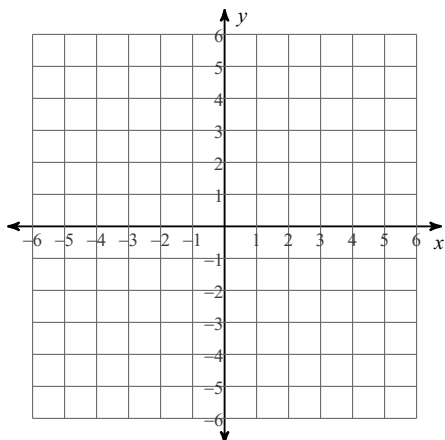
**Evaluate: Use order of operations to evaluate the given expressions. (no calculators)**

35)  $y(x + x)$ ; use  $x = -5$ , and  $y = 2$

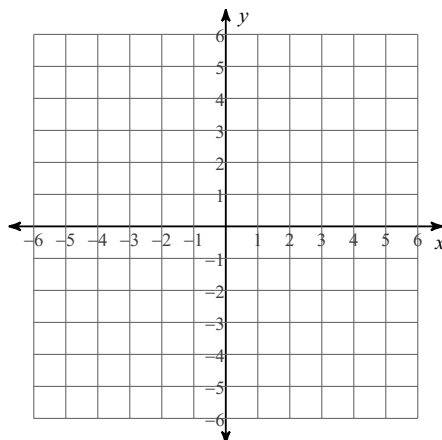
36)  $x + y - y$ ; use  $x = 2$ , and  $y = -4$

**Graphing Lines: Sketch the graph of each line using a ruler.**

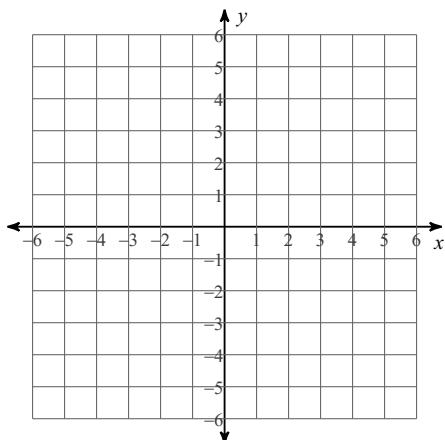
37)  $x = -2$



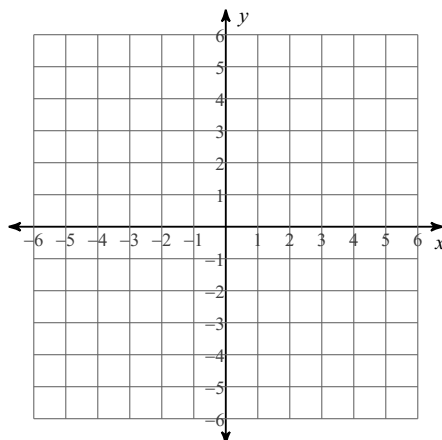
38)  $y = 3$



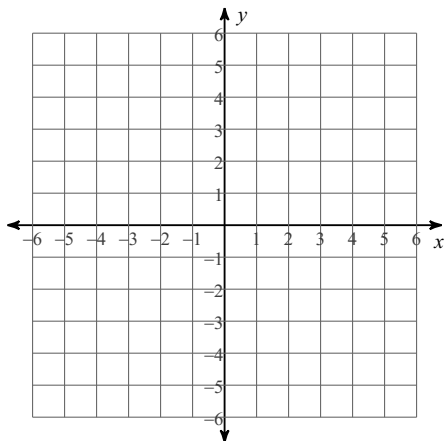
39)  $y = 3x + 3$



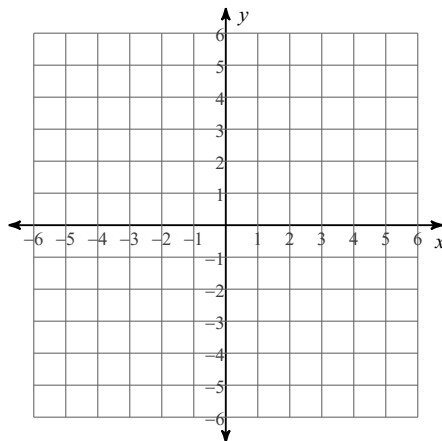
40)  $y = -x - 2$



41)  $x - 3y = -6$

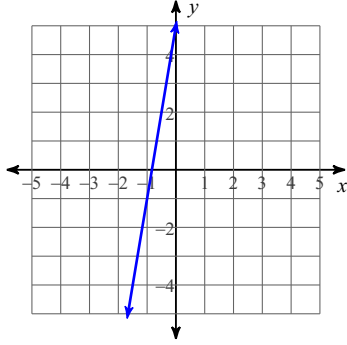


42)  $5x + 2y = 4$

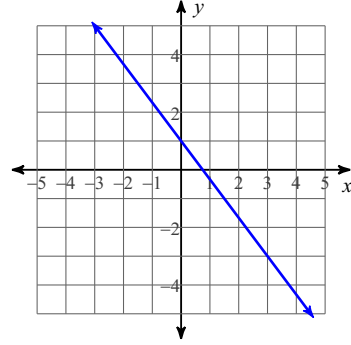


Write the slope-intercept equation of each line graphed.

43)



44)



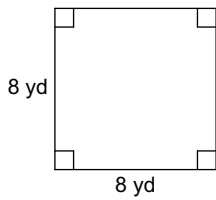
Find the slope of the line through each pair of points.

45)  $(15, -10), (0, 15)$

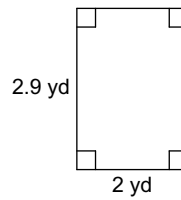
46)  $(-5, 1), (-5, -16)$

Find the perimeter and area of each. (no calculators)

47)

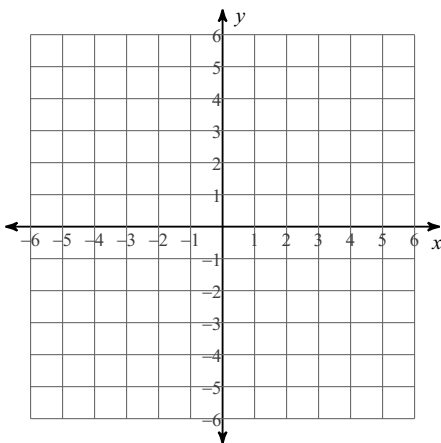


48)

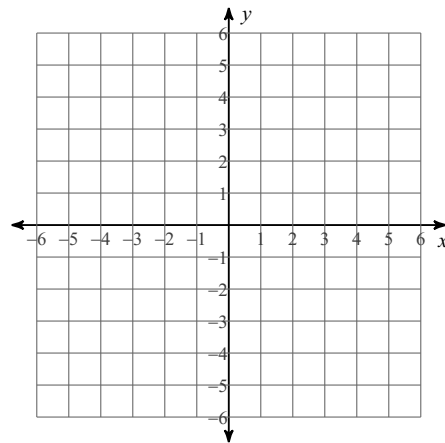


Sketch the graph of each linear inequality and make sure to shade the solutions area.

49)  $y < -\frac{1}{2}x - 1$



50)  $x + 4y \geq 0$



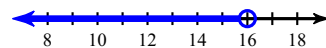
Solve each problem.

51) What is 93% of 80.3?

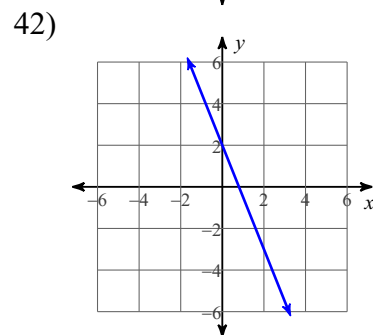
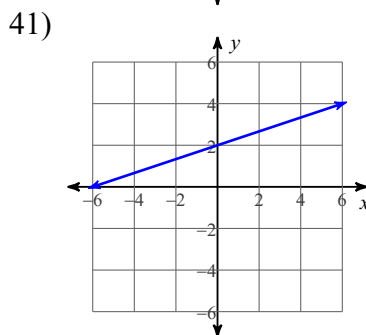
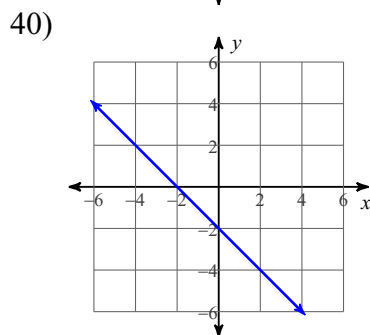
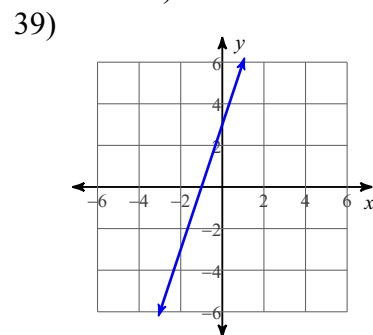
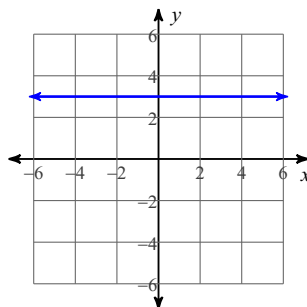
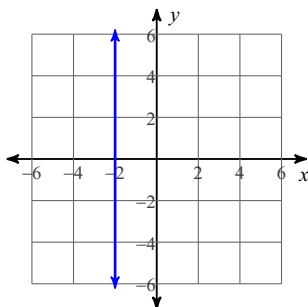
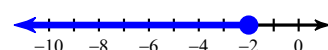
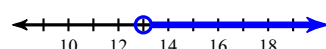
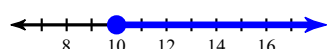
52) 270% of what is 7?

# Answers to Algebra I Summer Review Packet (no calculators)

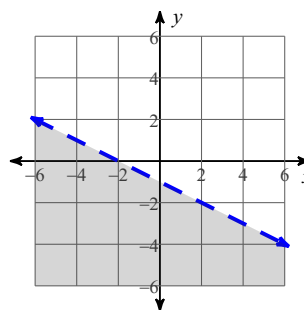
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|----------------------|----------------------|---------------------|----------------------|
| 1) -126              | 2) 15                | 3) -4.2             | 4) 3.732             |
| 5) 33                | 6) 36                | 7) 26               | 8) 4                 |
| 9) 5                 | 10) 43.8             | 11) $13\frac{5}{9}$ | 12) $-13\frac{3}{4}$ |
| 13) $1\frac{11}{28}$ | 14) $-5\frac{7}{15}$ | 15) $-\frac{29}{8}$ | 16) $-\frac{37}{7}$  |
| 17) $1\frac{17}{24}$ | 18) $\frac{13}{27}$  | 19) $\{-24\}$       | 20) $\{0\}$          |
| 21) $\{5\}$          | 22) $\{-8\}$         | 23) $\{8\}$         | 24) $\{-7\}$         |
| 25) 13               | 26) \$10             | 27) $x < 16$ :      |                      |



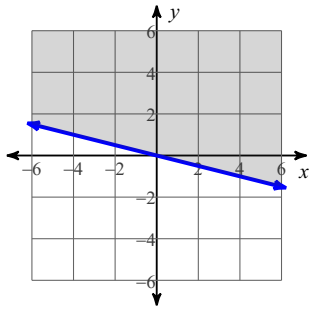
- |                   |                |         |        |
|-------------------|----------------|---------|--------|
| 28) $k \geq 10$ : | 29) $x > 13$ : | 31) 8   | 32) 38 |
| 30) $x \leq -2$ : | 33) $9u^2$     | 35) -20 | 36) 2  |
| 37)               | 34) 14         | 38)     | 39)    |



- |                       |                             |                    |               |
|-----------------------|-----------------------------|--------------------|---------------|
| 43) $y = 6x + 5$      | 44) $y = -\frac{4}{3}x + 1$ | 45) $-\frac{5}{3}$ | 46) Undefined |
| 47) $64 \text{ yd}^2$ | 48) $5.8 \text{ yd}^2$      | 49)                |               |



50)



51) 74.7

52) 2.6