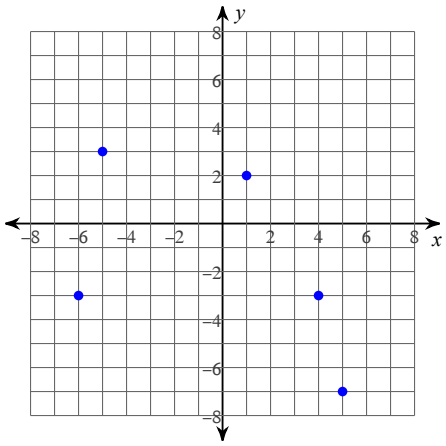
Algebra/Geometry Name_____ ID: 1

Summer Math Packet Part 2

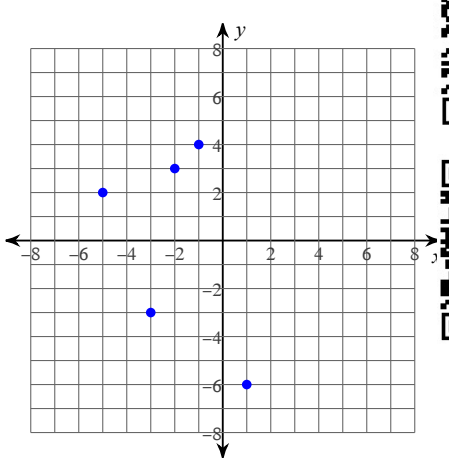
Date_____ Period____

8.15 - Each graph represents a relation. Determine the domain/range and if the relation is a function.

1)



2)



Each table represents a relation. Determine the domain/range and if the relation is a function.

3)

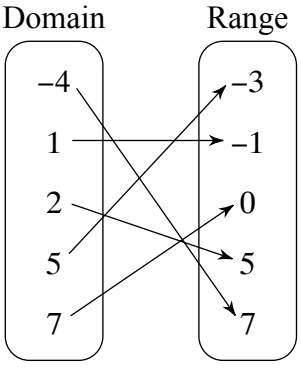
x	y
−4	4
−4	−2
2	2
3	−5
4	5

4)

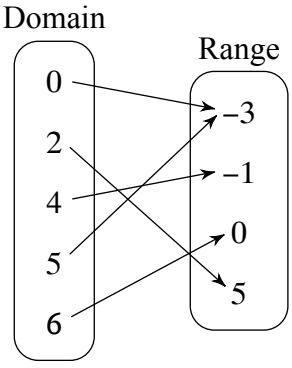
x	y
−6	7
−1	−5
0	6
4	−5
4	5

Each mapping diagram represents a relation. Determine the domain/range and if the relation is a function.

5)



6)



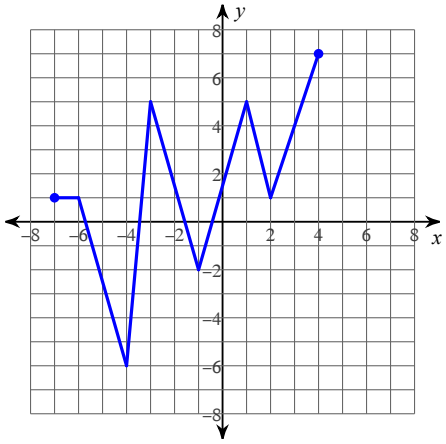
Each set of ordered pairs represents a relation. Determine the domain/range and if the relation is a function.

7) {(−7, 1), (−6, 6), (−6, 7), (−5, −5), (4, 2)}

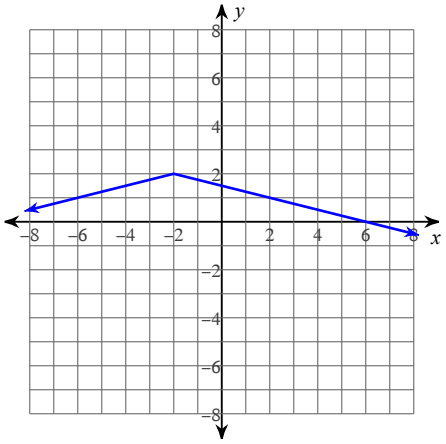
8) {(−1, 2), (0, 6), (2, 4), (3, 3), (5, −3)}

Each graph represents a relation. Determine if the relation is a function. Then find the domain and range.

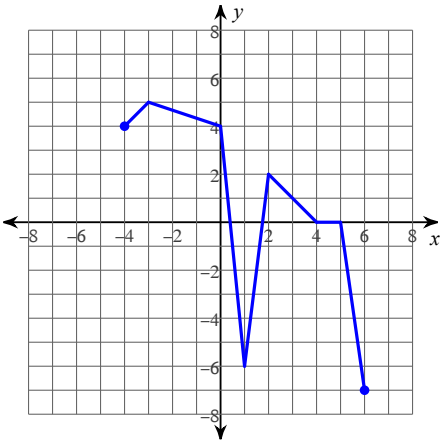
9)



10)



11)



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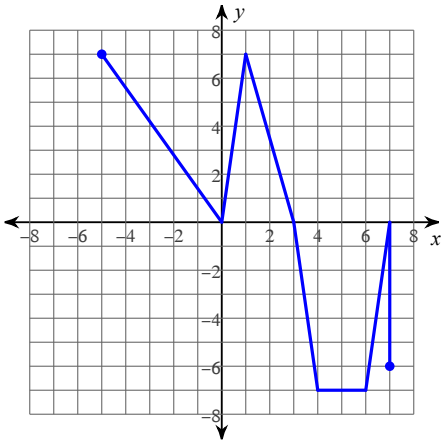
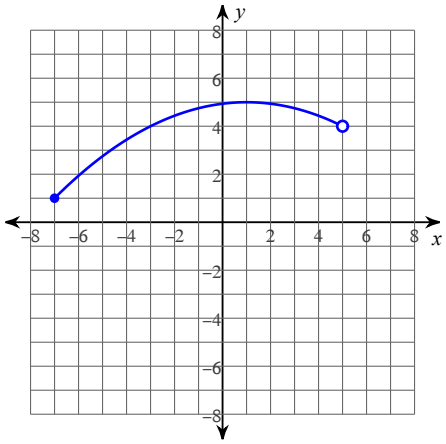


13)



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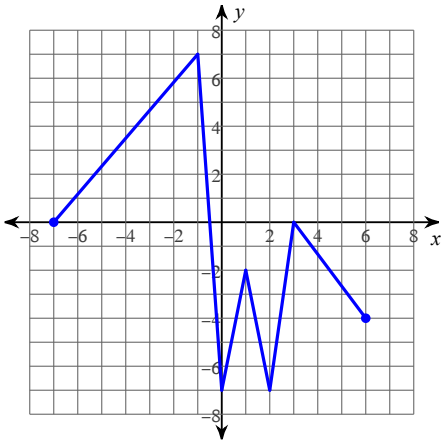


8.17 - Solve each equation.

15) $10 = k + 19$

16) $\frac{x}{19} = -\frac{1}{19}$

17) $5 - 7r + 4 = 9$

18) $1 = 4m - 5 - 6m$

19) $1 - 8x - 5x = 1$

20) $-8 = 5n - 4n$

21) $89 = -(-7m - 1) + 4m$

22) $-94 = -5(6 - 2a) - 4$

23) $7(6m - 4) = 308$

24) $133 = -7(m - 7) - 5m$

25) $n - 40 = 7n - 7(5 + n)$

26) $8 + 4m = -6(5m - 8) - 6m$

27) $7(3b + 3) = 2b + 21$

28) $-19 - 2a = -7(a + 2)$

29) $-2x - 4(2 + 3x) = 28 - 8x$

30) $-3(5x - 6) + 3x = 26 - 4x$

8.17 - Solve each proportion.

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

32) $\frac{7}{5} = \frac{b}{9}$

33) $\frac{6}{2} = \frac{a}{3}$

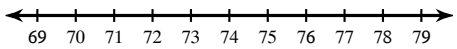
34) $\frac{4}{b} = \frac{8}{3}$

35) $\frac{10}{6} = \frac{x}{3}$

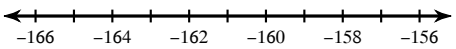
36) $\frac{n}{3} = \frac{10}{8}$

8.18 - Solve each inequality and graph its solution.

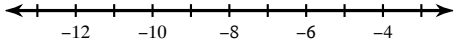
37) $\frac{k}{5} \leq 15$



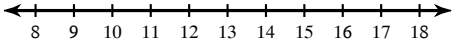
38) $-8 > \frac{n}{20}$



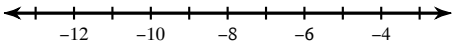
39) $-1 \geq \frac{-8 + m}{14}$



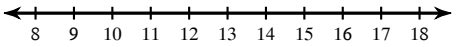
40) $-2 \geq \frac{n}{15} - 3$



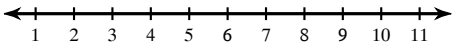
41) $-1 < \dfrac{-8 + k}{14}$



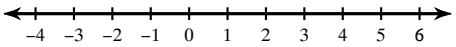
42) $-5 + \dfrac{x}{15} < -4$



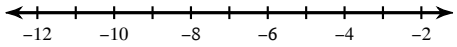
43) $a + 4 - 3a < -8$



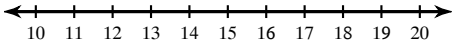
44) $-2 > 4n - 3n$



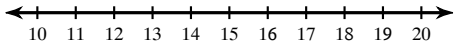
45) $13 \le p - 7 - 6p$



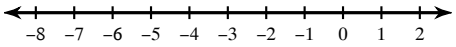
46) $-3x + 3x \ge 4$



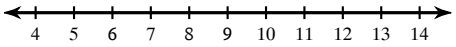
47) $-6m \le -4m - 2(m - 2)$



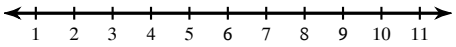
48) $34 + 7v \ge -4(4v + 3)$



49) $x - 4(x + 3) \ge -7x + 16$



50) $-4(v + 5) > -8 - 6v$



Answers to Summer Math Packet Part 2 (ID: 1)

1) Domain: $\{-6, -5, 1, 4, 5\}$
Range: $\{-7, -3, 2, 3\}$
The relation is a function.

2) Domain: $\{-5, -3, -2, -1, 1\}$
Range: $\{-6, -3, 2, 3, 4\}$
The relation is a function.

3) Domain: $\{-4, 2, 3, 4\}$
Range: $\{-5, -2, 2, 4, 5\}$
The relation is not a function.

4) Domain: $\{-6, -1, 0, 4\}$
Range: $\{-5, 5, 6, 7\}$
The relation is not a function.

5) Domain: $\{-4, 1, 2, 5, 7\}$
Range: $\{-3, -1, 0, 5, 7\}$
The relation is a function.

6) Domain: $\{0, 2, 4, 5, 6\}$
Range: $\{-3, -1, 0, 5\}$
The relation is a function.

7) Domain: $\{-7, -6, -5, 4\}$
Range: $\{-5, 1, 2, 6, 7\}$
The relation is not a function.

8) Domain: $\{-1, 0, 2, 3, 5\}$
Range: $\{-3, 2, 3, 4, 6\}$
The relation is a function.

9) The relation is a function.
Domain: $-7 \le x \le 4$
Range: $-6 \le y \le 7$

10) The relation is a function.
Domain: All real numbers
Range: $y \le 2$

11) The relation is a function.
Domain: $-4 \le x \le 6$
Range: $-7 \le y \le 5$

12) The relation is not a function.
Domain: $-5 \le x \le 7$
Range: $-7 \le y \le 7$

13) The relation is a function.
Domain: $-7 \le x < 5$
Range: $1 \le y \le 5$

14) The relation is a function.
Domain: $-7 \le x \le 6$
Range: $-7 \le y \le 7$

15) $\{-9\}$

16) $\{-1\}$

17) $\{0\}$

18) $\{-3\}$

19) $\{0\}$

20) $\{-8\}$

21) $\{8\}$

22) $\{-6\}$

23) $\{8\}$

24) $\{-7\}$

25) $\{5\}$

26) $\{1\}$

27) $\{0\}$

28) $\{1\}$

29) $\{-6\}$

30) $\{-1\}$

31) $\{23.33\}$

32) $\{12.6\}$

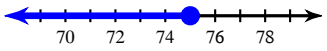
33) $\{9\}$

34) $\{1.5\}$

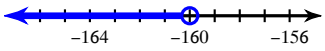
35) $\{5\}$

36) $\{3.75\}$

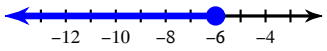
37) $k \le 75$:



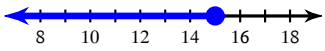
38) $n < -160$:



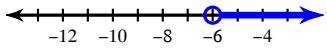
39) $m \le -6$:



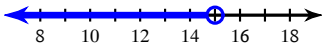
40) $n \le 15$:



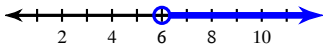
41) $k > -6$:



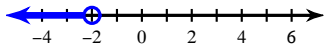
42) $x < 15$:



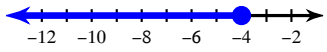
43) $a > 6$:



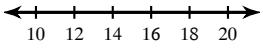
44) $n < -2$:



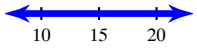
45) $p \le -4$:



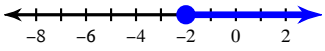
46) No solution. :



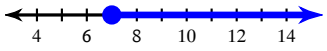
47) { All real numbers. } :



48) $v \ge -2$:



49) $x \ge 7$:



50) $v > 6$: