Pre-Algebra Name_____

Summer Math Review - NO CALCULATOR - SHOW WORK

Write each as an algebraic expression.

1) twice 7

2) half of n

3) 17 decreased by 14

4) the sum of a and 12

5) x less than 17

Evaluate each expression.

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

7) $(3 + 4)^2 + 3$

8) $\frac{10 + 2}{6} \cdot 3$

Evaluate each using the values given.

9) $j + j - h + h$; use $h = 2$, and $j = 5$

10) $x - \frac{y - y}{6}$; use $x = 5$, and $y = 5$

Simplify each expression.

11) $8x + 5x$

12) $1 + 4n - 8n$

13) $2(m + 5)$

14) $2(1 + 4x)$

15) $4(r + 1) + 5$

16) $4(-n + 1) - 5n$

17) $-5(-5n-2)-2(n+1)$

18) $4(n+1)-5(3n+3)$

19) $4(b-4)-(b+1)$

Solve each equation.

20) $0=-10+p$

21) $0=n+3$

22) $-9=\frac{n}{6}$

23) $2=n+10$

24) $3=p-5$

25) $\frac{m}{4}+4=5$

26) $5x+3=53$

27) $-2-5n=-7$

28) $-4n-3=-19$

29) $4k+4=8$

30) $-2=3+2x+3x$

31) $-4=n+2-4n$

32) $-5k-5+4=-11$

33) $60=-4(4r+5)$

34) $87=-5(2+4b)-3$

35) $70=5+5(4+3x)$

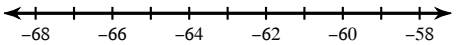
36) $3(4v - 3) = -25 + 4v$

37) $-x + 2 = -4(x - 2)$

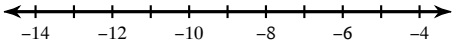
38) $-2(n - 3) - 6n = 15 + n$

Solve each inequality and graph its solution.

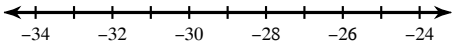
39) $-9 \le \frac{m}{7}$



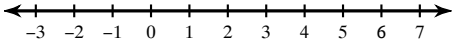
40) $-45 \ge 5a$



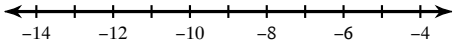
41) $\frac{a}{6} > -5$



42) $n - 2 > -1$

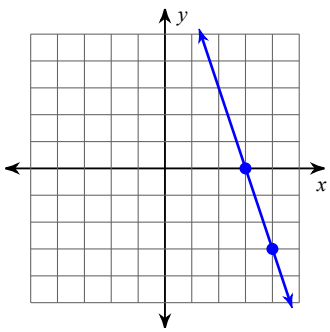


43) $-15 \ge p - 7$

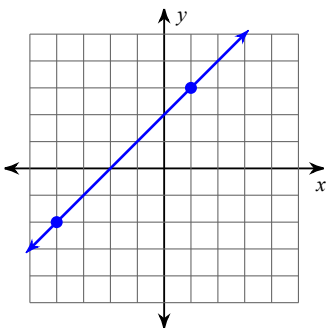


Find the slope of each line.

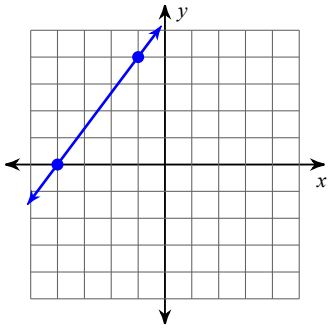
44)



45)



46)



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

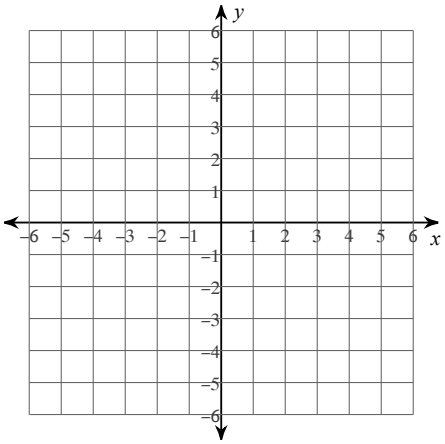
47) $(19, 14), (10, 8)$

48) $(-10, -8), (2, -20)$

49) $(18, 8), (6, -4)$

Sketch the graph of each line.

50) $y = -5x - 2$



51) $y = -\frac{1}{3}x - 4$