SHOW ALL WORK FOR EACH PROBLEM. NO WORK = NO CREDIT.

Solve each absolute value equation. Set up both cases!

1) \[|n + 1| - 5 = 6\]
2) \[\frac{|x - 2|}{10} = 5\]

Solve each equation for the indicated variable.

3) \[x - m = p - n\], for \(x\)
4) \[k + x = v + w\], for \(x\)

5) \[g = a - c - b\], for \(a\)
6) \[c - a = d + r\], for \(a\)

7) \[g = y + xc\], for \(x\)
8) \[a + m = n + p\], for \(a\)
Solve each equation.

9) \(-5 - 7(4 - 3x) = -201\)

10) \(-3(8b + 1) = 141\)

11) \(-14 - 6x = 1 - 7(x + 2)\)

12) \(32 + 8x = 8(4 - 7x)\)

Solve each proportion.

13) \(\frac{4}{9} = \frac{k + 7}{k}\)

14) \(\frac{n}{10} = \frac{n - 1}{8}\)

Sketch the graph of each linear inequality.

15) \(y < \frac{9}{5}x - 5\)

16) \(y \leq \frac{2}{5}x - 3\)
Solve each inequality and graph its solution.

17) \(-4(4n + 6) - 8 > -112\)

18) \(-7(4a + 5) \leq -91\)

Find the value of x or y so that the line through the points has the given slope.

19) \((-6, 3)\) and \((x, -7)\); slope: \(-2\)

20) \((7, y)\) and \((-2, 9)\); slope: 0

Sketch the graph of each line.

21) \(x = 4\)

22) \(y = 4\)