

Section 5.4 – Finding the Equation of a Line – The Point-Slope Form

Problem Set 3

Find the equation of the line through the following points.

1. (6, 7) and (5, 2)
2. (0, 4) and (2, 10)
3. (5, 2) and (-1, 4)
4. $\left(\frac{3}{5}, \frac{2}{5}\right)$ and $\left(-\frac{1}{5}, 2\right)$
5. (4.1, 1.2) and (1.6, 2)
6. (3.1, 1.5) and (-2.1, 8.3)
7. (4, 2) and (-4, 6)
8. $\left(-\frac{4}{3}, \frac{4}{5}\right)$ and $\left(\frac{13}{12}, -\frac{2}{5}\right)$
9. $\left(-\frac{2}{3}, \frac{7}{3}\right)$ and (1, 2)
10. (3, 0) and (-2, -2)
11. (5, 1) and (-3, 6)
12. (5, 0) and (-2, 14)

Applications

13. **Unit Costs** It costs a factory a total of \$485 to produce 100 clocks. If it costs them \$812 to produce 225 clocks, find a linear equation that describes their production costs.
14. **Unit Costs** How much does it cost the company in question 13 to produce 500 clocks?
15. **Weight Conversions** 100 pounds is approximately equal to 45.3 kilograms. If 125 pounds is approximately equal to 56.7 kilograms, find a linear equation that describes the relationship between the two weight measurements.
16. **Weight Conversions** Using your equation from the previous question, how many kilograms does it take to equal 2000 pounds?