

Precalculus Section 2.1 Exercises

1. Find an equation of the line passing through $(2, -7)$ and $(-4, 1)$.
2. Find an equation of the line with slope $-\frac{1}{2}$ and y -intercept $(0, 4)$.
3. Do exercises 70 and 71 (about perpendicular lines) in section 2.1 of Stitz-Zeager.
4. Jonathan leaves home at 5:00 am and hikes at a constant rate of 3 miles per hour over the hills and through the woods to Grandmother's house, who lives 12 miles away. Two hours later, Jonathan's brother Philip leaves home and follows the same path through the woods with his horse and sleigh at a constant rate of 8 miles per hour. Write down linear functions for Philip and Jonathan that model their respective distances from home as functions of time. Graph the two lines, find the point where they intersect, and explain the meaning of this point.