

EXAMPLES OF HOW HOMEWORK SHOULD BE WRITTEN

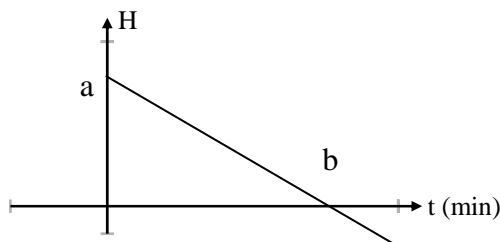
Section 1.1 exercise 11.

Find the equation of a line passing through (2,1) and is perpendicular to the line $y = 5x - 3$.

The slope of the given line is 5 so the slope of the perpendicular line is $-\frac{1}{5}$. Using the formula $y = mx + b$ and the values $m = -\frac{1}{5}$, $x = 2$, and $y = 1$ we get $1 = -\frac{1}{5} \cdot 2 + b$. We solve for b . $b = -\frac{7}{5}$. This gives us a final equation $y = -\frac{1}{5}x + \frac{7}{5}$.

Section 1.1 exercise 27.

An object is put outside on a cold day at time $t = 0$. Its temperature $H = f(t)$ in $^{\circ}\text{C}$ is given by the graph below. What does the statement $f(30) = 10$ mean? What does the vertical and horizontal intercepts mean in terms of temperature?



$f(30) = 10$ means that the temperature of the object was 10°C after it had been outside for 30 minutes. $(0, a)$ is the vertical intercept. The temperature of the object was $a^{\circ}\text{C}$ when it was initially put outside. $(b, 0)$ is the horizontal intercept. When the object had been outside for b minutes, the temperature of the object was 0°C .

Section 1.1 exercise 29.

You drive at a constant speed from Chicago to Detroit, a distance of 275 miles. About 120 miles from Chicago you pass through Kalamazoo, Michigan. Sketch a graph of your distance from Kalamazoo as a function of time.

