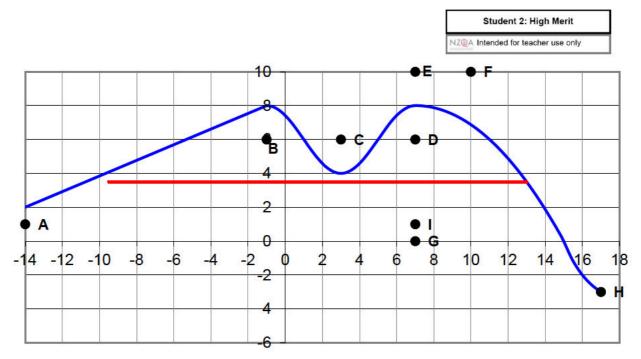
Exemplar for internal assessment resource Mathematics and Statistics for Achievement Standard 91257



1 square is 1 metre

Section 1, straight line from (-14,2) to (-1,8) is $y = \frac{6}{13}x + 8.46$

Section 2 will be a sin graph. Amplitude is 2 (up and down 2 about y = 6) and the period is 8.

$$y = 2\sin\frac{2\pi}{8}(x - 5) + 6$$

Section 3 is a parabola. Vertex is at (7,8). It goes through (15,0). $y = \frac{-1}{8}(x-15)(x+1)$

Section 4 is exponential $y = A.2^{x-B} + C$. The curve is moved over 15. $y = -2^{x-15} + 1$

The instructor is the red line, y = 3.5 between x = -9.5 and x = 13