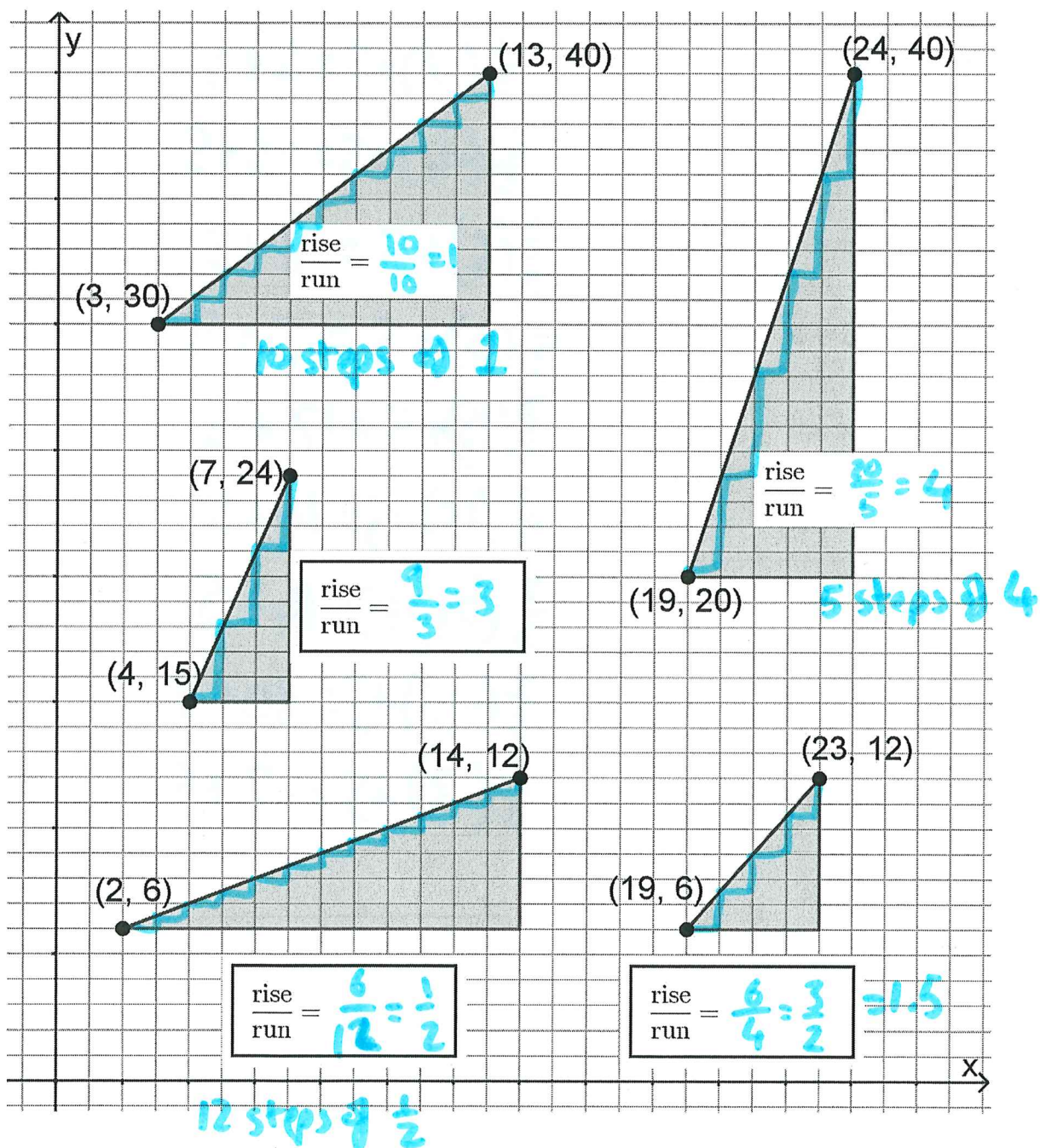
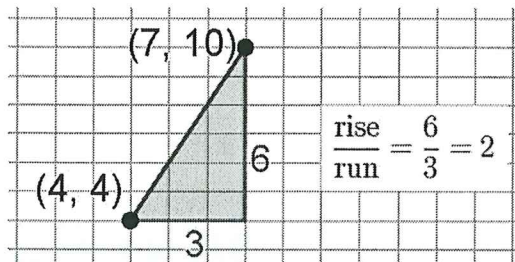


Grade 9 Numeracy B2 (Unit 5 Linear Functions)

Use the coordinates or the grid to calculate the horizontal and vertical lengths of each triangle.

Write the ratio $\frac{\text{rise}}{\text{run}}$ as a fraction in its simplest terms.



Substitute the x value into these linear relations to calculate the y value.

Remember that to multiply by $\frac{1}{3}$ is the same as to divide by 3.

Remember that to multiply by $\frac{2}{3}$ is the same as to $\div 3$ then $\times 2$

	function	x	working	y
	$y = \frac{1}{3}x + 5$	$x = 21$	$y = \left(\frac{1}{3} \times 21\right) + 5 = 7 + 5$	$y = 12$
1.	$y = \frac{1}{3}x + 5$	$x = 24$	$\frac{1}{3}(24) + 5 = 8 + 5$	$y = 13$
2.	$y = \frac{1}{3}x + 5$	$x = 12$	$\frac{1}{3}(12) + 5 = 4 + 5$	$y = 9$
3.	$y = \frac{1}{3}x + 5$	$x = -12$	$\frac{1}{3}(-12) + 5 = -4 + 5$	$y = 1$
4.	$y = \frac{1}{3}x + 5$	$x = 6$	$\frac{1}{3}(6) + 5 = 2 + 5$	$y = 7$
5.	$y = \frac{1}{3}x + 5$	$x = 0$	$\frac{1}{3}(0) + 5 = 0 + 5$	$y = 5$
6.	$y = \frac{2}{3}x + 5$	$x = 18$	$\frac{2}{3}(18) + 5 = 12 + 5$	$y = 17$
7.	$y = \frac{2}{3}x + 5$	$x = 15$	$\frac{2}{3}(15) + 5 = 10 + 5$	$y = 15$
8.	$y = \frac{2}{3}x + 5$	$x = 21$	$\frac{2}{3}(21) + 5 = 14 + 5$	$y = 19$
9.	$y = \frac{2}{3}x + 5$	$x = -15$	$\frac{2}{3}(-15) + 5 = -10 + 5$	$y = -5$
10.	$y = \frac{2}{3}x + 5$	$x = -3$	$\frac{2}{3}(-3) + 5 = -2 + 5$	$y = 3$

$$\frac{2}{3} \times 15 = 10$$

