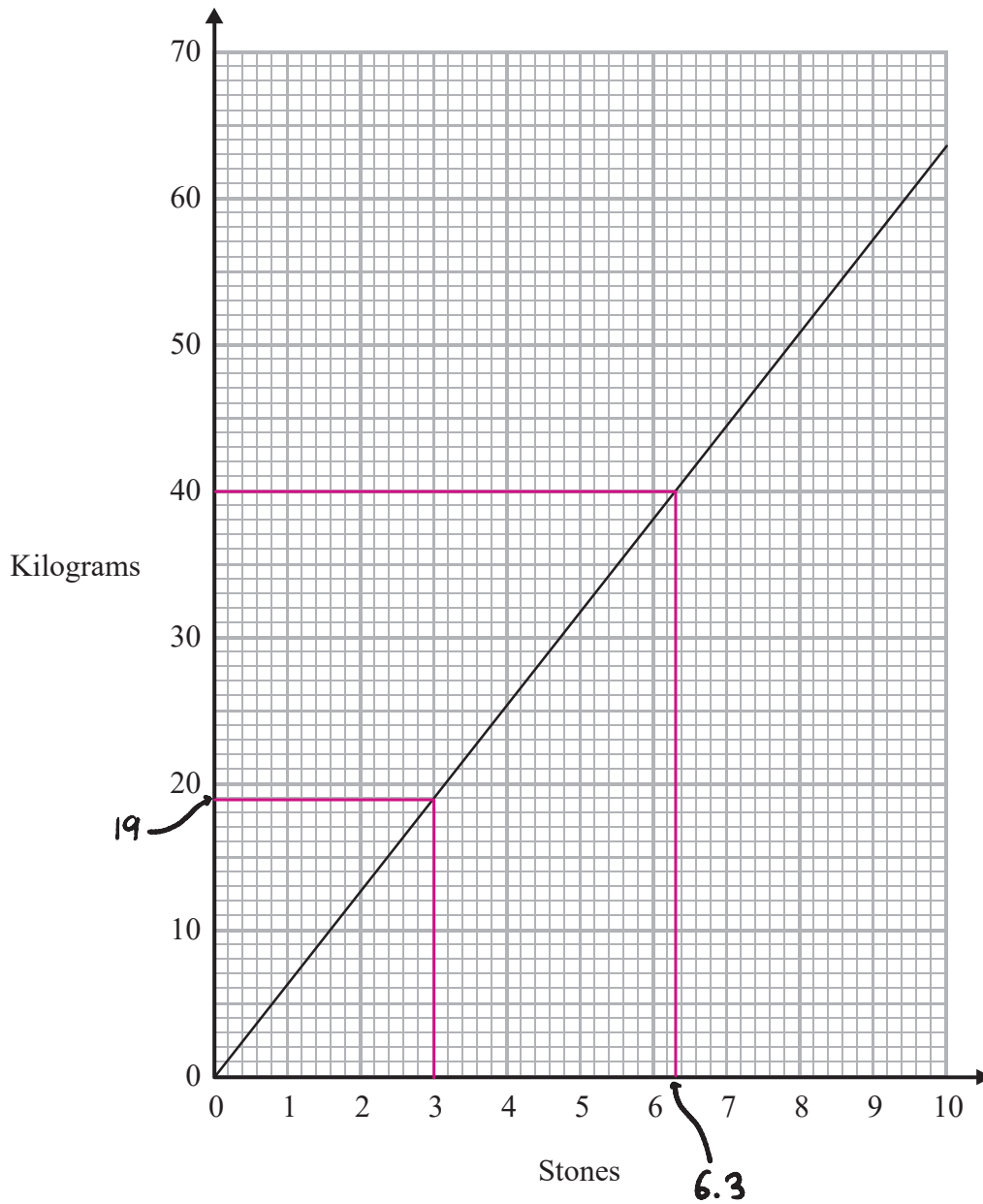


1. You can use this graph to change between stones and kilograms.



(a) Change 3 stones to kilograms.

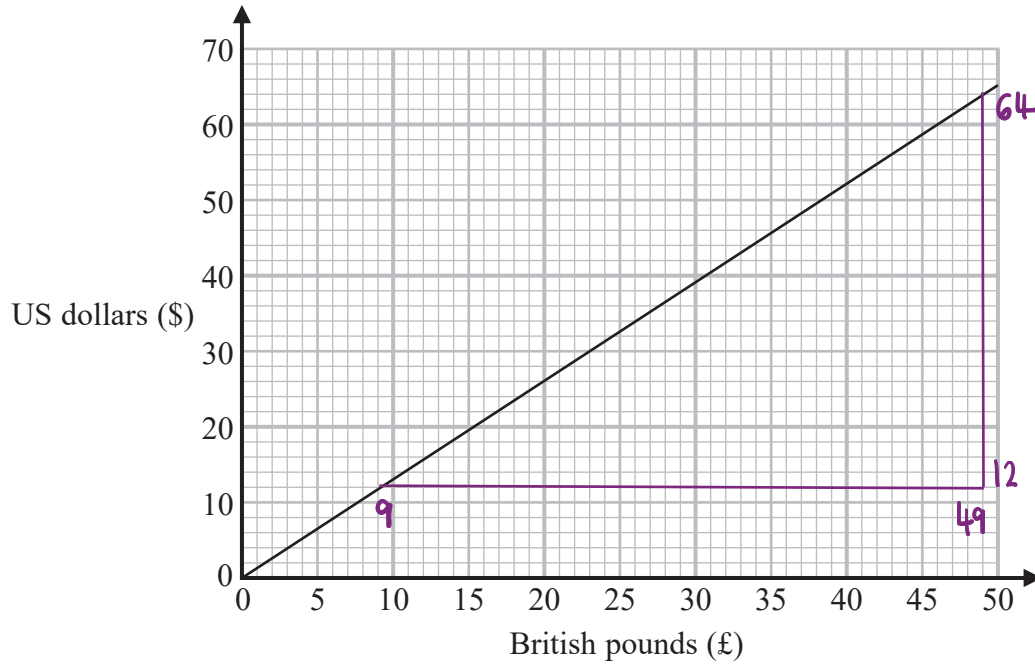
..... 19 <sup>①</sup> ..... kilograms  
(1)

(b) Change 80 kilograms to stones.

$80 \div 2 = 40$   $\times 2$   $\downarrow$   $40 \text{ kg} = 6.3 \text{ stones}$  <sup>①</sup>  
 $80 \text{ kg} = 12.6 \text{ stones}$   $\downarrow \times 2$  <sup>①</sup>

..... 12.6 ..... stones  
(2)

2. This graph can be used to change between US dollars (\$) and British pounds (£).



Rosie bought a ring in the USA.  
She paid 345 US dollars.

Work out in pounds the amount Rosie paid for the ring.

British pounds =  $x$ . US dollars =  $y$ .

Find equation of line:

$$\text{gradient, } m, = \frac{\Delta y}{\Delta x} = \frac{64-12}{49-9} = 1.3$$

$$y\text{-intercept, } c, = 0.$$

$$\left. \begin{array}{l} y = mx + c \\ y = 1.3x + 0 \\ \therefore y = 1.3x \end{array} \right\} \textcircled{1}$$

Find  $x$  when  $y = 345$ :

$$y = 1.3x \quad \textcircled{1}$$

$$345 = 1.3x$$

$$\div 1.3 \quad \left( \begin{array}{l} 345 \\ 265.384... \end{array} \right) = x \quad \left( \div 1.3 \right)$$

£ 265

(Total for Question is 3 marks)

$x = 265.38.. \therefore$  Rosie paid  $\approx$  £265 for the ring.