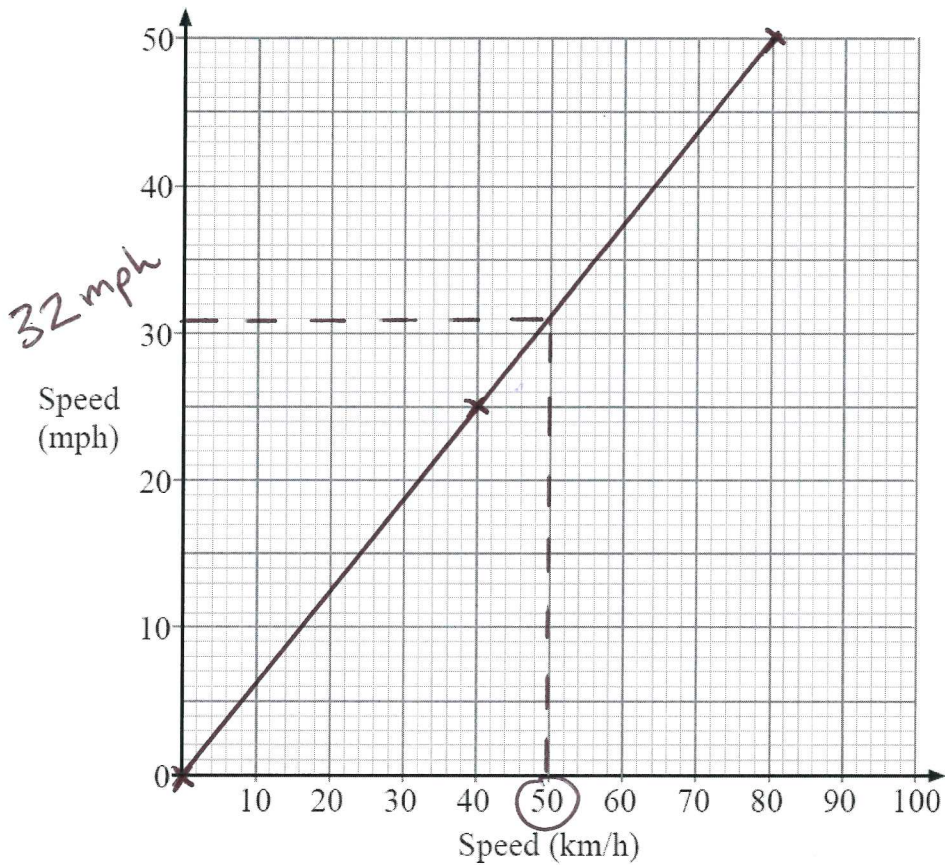


M6 = 22 days to go!

5 Speed can be measured in kilometres per hour (km/h) or miles per hour (mph).

(a) Use the values in the table to draw a conversion graph.

Speed (km/h)	0	40	80
Speed (mph)	0	25	50



[2]

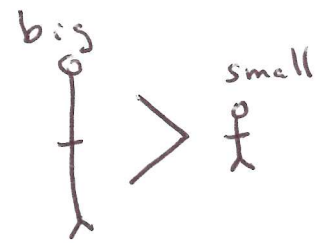
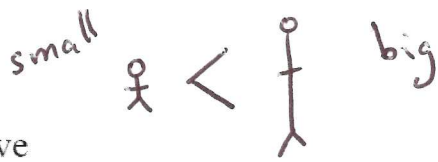
(b) Jonah is travelling at 50 km/h. *Change 50 km/h*

Is he breaking the 30 mph speed limit?

You **must** use your graph to help explain your answer clearly.

Answer Yes because 50 km/h changes to 32 mph so he is breaking the 30 mph speed limit. [1]

13 Solve



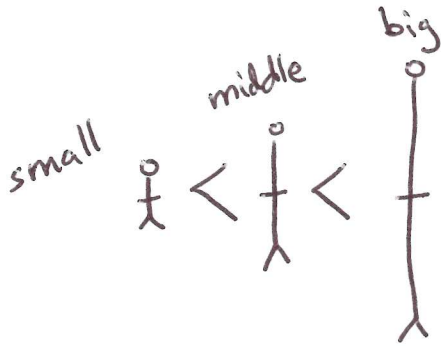
$$8x < 6x + 7$$

$$\textcircled{-6x} \quad \textcircled{-6x}$$

$$2x < 7$$

$$\textcircled{\div 2} \quad \textcircled{\div 2}$$

$$x < 3.5$$



14 (a) Write the binary number 10101 as a decimal number.

32	16	8	4	2	1
	1	0	1	0	1

$$16 + 4 + 1$$

Answer 21 [1]

(b) Write the decimal number 26 as a binary number.

32	16	8	4	2	1
	1	1	0	1	0

Answer 11010 [1]

$$26 = 16 + 8 + 2$$