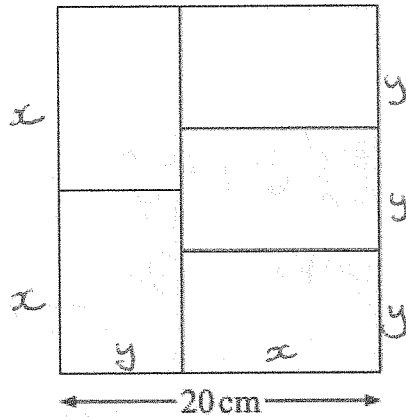


23

M4 = 21 days to go!

11 Five identical rectangles fit together as shown.



$$2x = 3y$$

$$x = \frac{3y}{2}$$

What is the total area covered by the rectangles?

A solution by trial and improvement will not be accepted.

Show your working.

$x + y = 20$ along the bottom of the picture

$$\frac{3y}{2} + y = 20$$

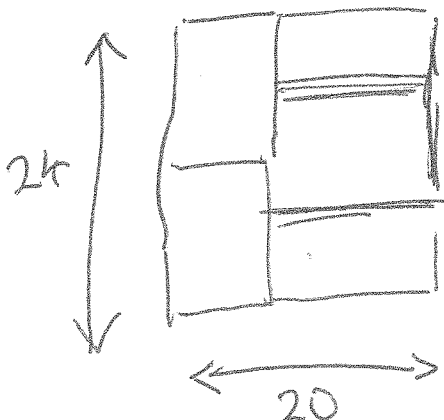
$$1.5y + y = 20$$

$$2.5y = 20$$

$$y = 8$$

$$x = \frac{3 \times 8}{2}$$

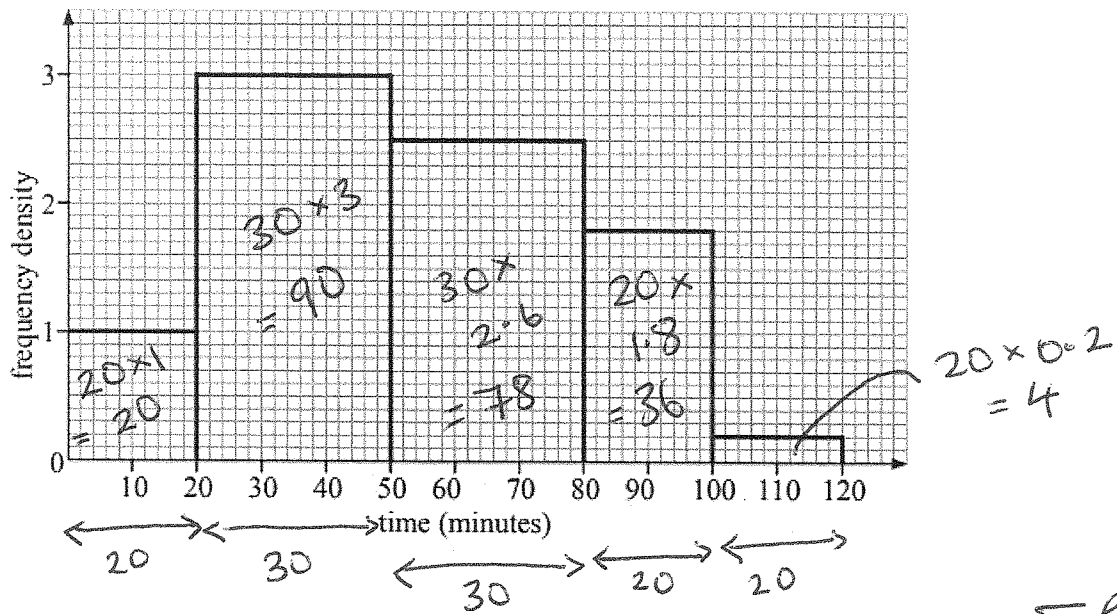
$$x = 12$$



$$20 \times 24$$

$$480 \text{ cm}^2$$

17 The histogram illustrates how much time drivers took on a particular journey.



(a) Calculate an estimate for the mean time.

Time Interval	freq	fx
0 ≤ 10 < 20	20	200
20 ≤ 35 < 50	90	3150
50 ≤ 65 < 80	78	5070
80 ≤ 90 < 100	36	3240
100 ≤ 110 < 120	4	4400
	<u>228</u>	<u>16060</u>

Mean = $\frac{\sum fx}{\sum f}$

= $\frac{16060}{228}$

= 70.44

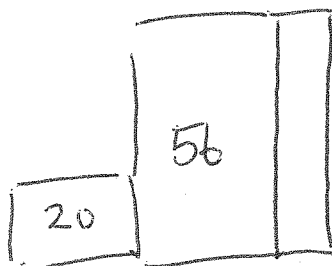
Answer 70 minutes [4] nearest minute.

(b) Two-thirds of the drivers took more than M minutes.

Calculate an estimate for the value of M.

$$\frac{2}{3} \text{ of } 228 = 152$$

$$\frac{1}{3} \text{ of } 228 = 76$$



?

18.6

19 nearest min

Answer 39 minutes [3]