

M4 = 26 days to go!

FACTORISE

FACTORIES make brackets

8 Factorise each of the following.

(a) $10cp^2 - 4cp$

$2cp (\quad - \quad)$

Answer $2cp(5p-2)$ [2]

(b) $y^2 - 1$ Difference of 2 squares

$y^2 - 1^2$

Answer $(y+1)(y-1)$ [1]

(c) $k^2 - 2k - 3$

add to -2 multiply to -3

Answer $(k-3)(k+1)$ [2]

(d) $(x-2)^2 + 5(x-2)$

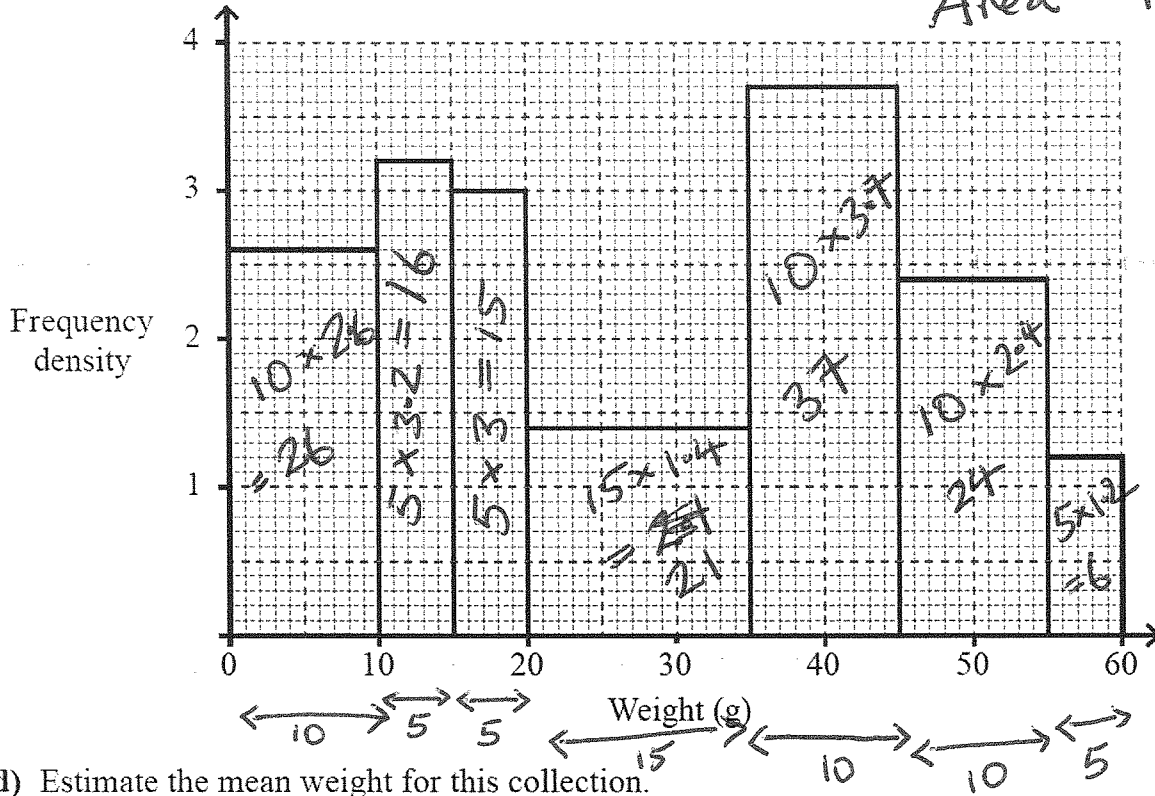
Answer $(x-2)(x+3)$ [2]

$(x-2) [(x-2) + 5]$

$(x-2) [x+3]$

$(x-2)(x+3)$

If you can find area of a rectangle you can do histograms
 The weights of a second collection of bags are shown in the histogram below.
 Area = Frequency



(d) Estimate the mean weight for this collection.

Now make a table

Weight	Frequency f	mid-pt x	fx
$0 \leq w < 10$	26	5	130
$10 \leq w < 15$	16	12.5	200
$15 \leq w < 20$	15	17.5	262.5
$20 \leq w < 35$	21	27.5	577.5
$35 \leq w < 45$	37	40	1480
$45 \leq w < 55$	24	50	1200
$55 \leq w < 60$	6	57.5	345
	<u>145</u>		<u>4195</u>

Answer $\frac{4195}{145} = 28.9 \text{ g [4]}$

$$\text{Mean} = \frac{\text{sum of } fx}{\text{sum of } f} = \frac{4195}{145} = 28.9$$