IGCSE Edexcel Past Papers

MATHEMATICS A

Paper 4HR

2015 — Winter 2019

1 - (4MA0-S 2015-Paper 4HR-Q2) - *NUMBER*

The distance from Kyoto to Hakata is 638 kilometres.
The train journey from Kyoto to Hakata takes 2 hours 45 minutes.

Work out the average speed, in kilometres per hour, of the train from Kyoto to Hakata.

..... km/h

(Total for Question is 3 marks)

2 - (4MA0-S 2015-Paper 4HR-Q3) - *NUMBER*

Amit invests 15000 rupees.
At the end of one year, his investment has increased by $7\frac{1}{2}\%$

(a) Work out the value of Amit's investment at the end of one year.

..... rupees
(2)

Priya invests a sum of money at an interest rate of 8% per year.
At the end of one year, the interest she receives is 1800 rupees.

(b) Work out the value of Priya's investment at the end of one year.

..... rupees
(3)

(Total for Question is 5 marks)

3 - (4MA0-S 2015-Paper 4HR-Q8) - *NUMBER*

Flaky pastry is made using flour and fat in the ratio 9 : 7 by weight.
Cassie makes some flaky pastry.
She uses 175 grams of fat.

(a) Work out the weight of flour Cassie uses.

..... grams
(2)

Sweet pastry is made using flour, fat and sugar in the ratio 27 : 14 : 9 by weight.
Luke makes some sweet pastry.
The total weight of flour, fat and sugar he uses is 400 grams.

(b) Work out the weight of flour Luke uses.

..... grams
(2)

Elisha makes some flaky pastry and some sweet pastry.
She uses the same weight of flour for the flaky pastry as she does for the sweet pastry.

(c) Work out the ratio of the weight of fat she uses in the flaky pastry to the weight of fat she uses in the sweet pastry.

.....
(2)

(Total for Question is 6 marks)

4 - (4MA0-S 2015-Paper 4HR-Q14) - *NUMBER*

V is inversely proportional to the square of t

$V = 28$ when $t = 2.5$

(a) Express V in terms of t

.....

(3)

(b) Work out the value of V when $t = 6.25$

$V =$ .....

(2)

(Total for Question is 5 marks)

ANSWERS

1 - (4MA0-S 2015-Paper 4HR-Q2) - *NUMBER*

	$\frac{638}{2.75}$ or $\frac{638}{2\frac{3}{4}}$ or $\frac{638}{11/4}$ or $\frac{638}{11} \times 4$ or $\frac{638}{165} \times 60$ oe	232

2 - (4MA0-S 2015-Paper 4HR-Q3) - *NUMBER*

(a)	Eg $\frac{7\frac{1}{2}}{100} \times 15000$ or 0.075×15000 oe or 1125 or $0.075 \times 15000 + 15000$ or 15000×1.075 oe	16125
(b)	Eg $\frac{1800}{8} \times 108$ or $\frac{1800}{0.08} \times 1.08$ or 22500×1.08 or $\frac{1800}{0.08} + 1800$ or $\frac{1800}{8} \times 100 + 1800$ or $225 \times 100 + 1800$ or $22500 + 1800$	24300

3 - (4MA0-S 2015-Paper 4HR-Q8) - *NUMBER*

(a)	Eg $\frac{175}{7}\times 9$	225
(b)	$\frac{400}{27+14+9}\times 27$ oe or $\frac{400}{27+14+9}$ or $\frac{400}{50}$ or 8	216
(c)	(9 : 7 =) 27 : 21 or $9:\frac{14}{3}$ Or Flaky: (flour x), fat $\frac{7}{9}x$ and Sweet: (flour x), fat $\frac{14}{27}x$ where x may also be any positive value	3 : 2 oe

4 - (4MA0-S 2015-Paper 4HR-Q14) - *NUMBER*

(a)	$V=\frac{k}{t^2}$ $28=\frac{k}{2.5^2}$ oe or $k = 28\times 2.5^2$ or $k = 175$	$V=\frac{175}{t^2}$
(b)	$V=\frac{"175"}{6.25^2}$	4.48