

1 [2024-M/J-11-11]

Tom's pet eats $\frac{3}{5}$ of a tin of food each day.

Tom needs food for his pet for 12 days.

Calculate the number of tins of food Tom needs to buy.

..... [2]

2 [2024-M/J-08-12]

- (a) A train leaves station *A* at 07 43.
The train arrives at station *B* at 10 27.

Work out the time the train takes to travel from station *A* to station *B*.

..... hours minutes [1]

- (b) A bus leaves the bus station at 06 25.
It arrives at the airport at 07 05.
The distance from the bus station to the airport is 24 km.

Calculate the average speed of the bus for this journey.
Give your answer in km/h.

..... km/h [3]

3 [2025-M/J-16-22]

The population of Kenya is 5.71×10^7 people.

The area of Kenya is $6 \times 10^5 \text{ km}^2$.

The population density is the number of people per km^2 .

Calculate the population density of Kenya.

..... people / km^2 [2]

4 [2024-M/J-01-22]

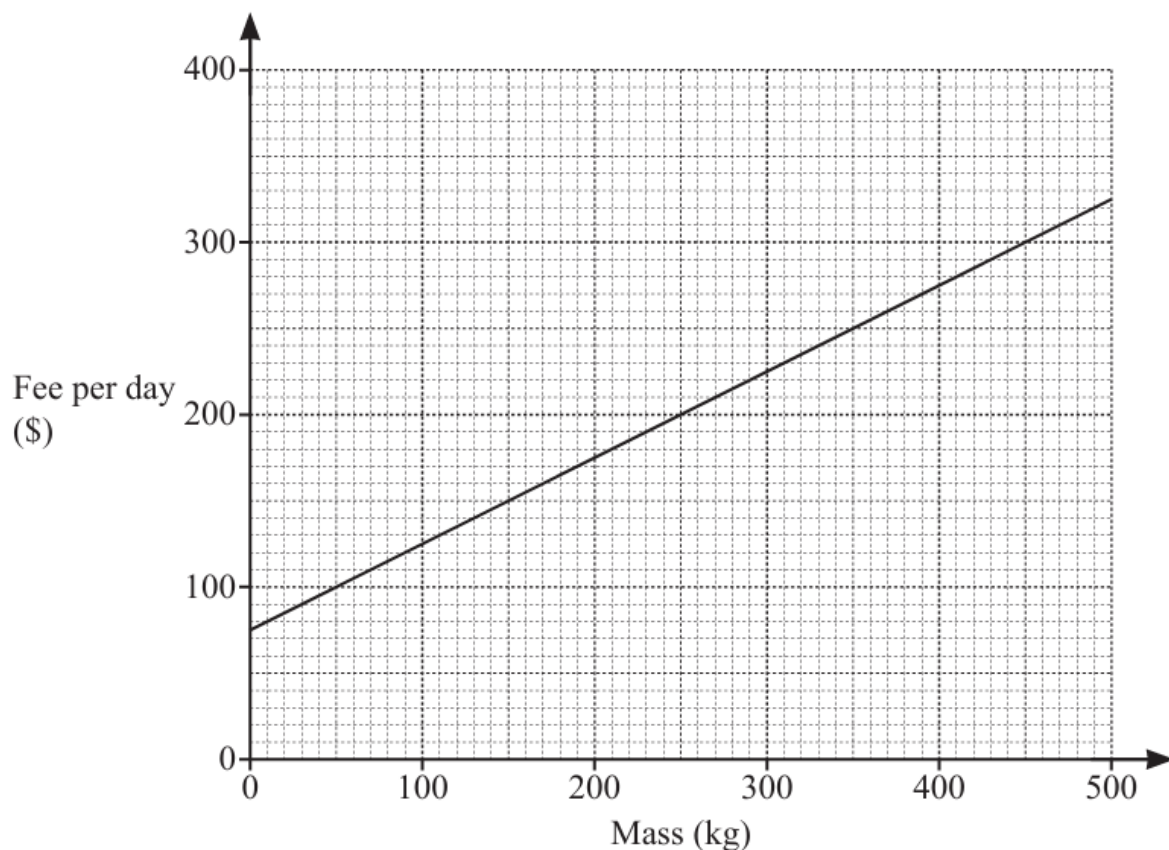
(a) Oranges cost \$1.45 per kilogram.

Asher buys 1.2 kg of oranges.

Find the change he receives from \$10.

\$ [1]

- (b) Maria pays a fee to sell strawberries at a market.
Each day she pays \$75 plus a payment for the mass of strawberries she sells.
The fee Maria pays per day is shown on the graph.



- (i) One day Maria's fee is \$240.

Use the graph to find the mass of strawberries she sells that day.

..... kg [1]

- (ii) On Saturday Maria sells 270 kg of strawberries.
On Sunday she sells 220 kg of strawberries.

Find the **total** fee she pays for these two days.

\$ [2]

5 [2024-M/J-9c-21]

- (c) Boat B leaves port B at 10.00 am.
It sails directly to port A at an average speed of 48 km/h.

Boat C leaves port C at 10.15 am.
It sails directly to port A and arrives there 7 minutes before boat B .

Find the average speed of boat C in km/h.

6 [2023-M/J-2b-21]

- (b) Xavier works for 5 days each week.
He works for $4\frac{1}{2}$ hours on each of the 5 days.

- (i) Each week he earns \$261.

Calculate the hourly rate he is paid.

\$ [1]

7 [2022-M/J-01b-21]

- (b) In January, the cost of petrol is \$2.20 per litre.

- (i) Find the cost of 38.7 litres of petrol.

\$ [1]

- (ii) The average amount of petrol Frederick's car uses is 7 litres per 100 km.
In January, he spends \$215.60 on petrol.

Calculate the number of kilometres he drives in January.

..... km [3]

- (iii) In February, the cost of petrol increases to \$2.24 per litre.

Calculate the percentage increase in the cost of petrol from January to February.

.....% [2]

8 [2020-M/J-14-12]

- (b) The population density of a country is the number of people per square kilometre.

In 2017, the population of Indonesia was 2.62×10^8 , correct to 3 significant figures.
The area of Indonesia is $2 \times 10^6 \text{ km}^2$, correct to 1 significant figure.

Calculate an estimate for the population density of Indonesia.

..... people/ km^2 [2]