

Formulae  
S1-S3, National 4

1. The cost of hiring a car is given below

$$\text{Cost} = \text{£}50 + (\text{number of days} \times \text{£}21)$$



(a) Find the cost of hiring a car for (i) 5 days (ii) a week.

(b) Mr. Brown has £260 to spend on hiring a car.  
For how many days can he hire a car?

2. The cost of hiring a cement mixer is

$$\text{Cost} = \text{£}25 + (\text{number of days} \times \text{£}7.50)$$



(a) Find the cost of hiring the cement mixer for (i) 4 days (ii) 10 days.

(b) The cement is hired and the cost is £115. How many days is it hired for?

3. To change degrees Celsius into degrees Fahrenheit we use

$$\text{Fahrenheit} = (\text{degrees Celsius} \times 1.8) + 32$$



(a) Change 20 degrees Celsius into degrees Fahrenheit.

(b) Change 77 degrees Fahrenheit into Celsius?

4. To join a gym the cost is given by

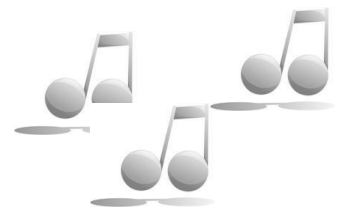
$$\text{Cost} = \text{£}35 + (\text{number of sessions} \times \text{£}4.50)$$

(a) Find the cost of using the gym for (i) 14 sessions (ii) 30 sessions.

(b) Amanda spent a total of £125 at the gym. How many sessions did she have?

5. A music downloading site charges its users as follows

$$\text{Cost} = (\text{number of tracks} \times \text{£}0.65) + \text{£}15$$



(a) How much would it cost to download (i) 80 tracks? (ii) 200 tracks?

(b) Michael spent £106 on downloading tracks. How many tracks did he download?

6. An electricity bill is worked out as

$$\text{Bill} = (\text{number of units} \times \text{£}0.08) + \text{£}42$$

- (a) Calculate the bill if 2400 units are used.
- (b) A bill totals £130. How many units were used?

7. John is a member of a ten-pin bowling club. His annual membership costs are

$$\text{Cost} = \text{£}22 + (\text{number of games} \times \text{£}4.50)$$



- (a) Calculate the cost of playing (i) 28 games. (ii) 40 games.
- (b) John paid a total of £382 at the bowling club one year. How many games did he play that year?

8. The cost of hiring a tree pulping machine is

$$\text{Cost} = \text{£}15 + (\text{number of days} \times \text{£}6.75)$$

- (a) How much would it cost to hire the machine for (i) 3 days (ii) a fortnight
- (b) Laura paid £55.50 hiring the pulping machine. How many days did she hire it for?

9. To hire a bouncy castle costs as follows

$$\text{Cost} = (\text{number of hours} \times \text{£}2.50) + \text{£}40$$



- (a) How much would it cost to hire the bouncy castle for (i) 2 hours (ii) 8 hours
- (b) Sidra has £56 to spend on hiring a bouncy castle. How long can she hire the bouncy castle for?

10. A stretch limousine can be hired for the following costs

$$\text{Cost} = \text{£}60 + (\text{number of hours} \times \text{£}12)$$



- (a) How much would it cost to hire a limousine for 5 hours?
- (b) David has £200 to spend on hiring a limousine. How many hours can he hire it for?