

Formulae Worksheet - ANSWERS

This exercise will cover the following:

- Working with formulas
- Calculations through formulae

Exercise Name: Worksheet using a formula

2 Questions

The exercise begins:

Question 1:

A small computer games company uses the following formula to work out their profit:

$$P = n(S - C) - F \quad \text{where} \quad P \text{ is Profit}$$

n is the number of items

S is Selling price per item

C is Cost price per item

F is Fixed Costs

Find the profit in a month when the fixed costs are £200, the cost price and selling price are £65 and £74.99 respectively, and 150 items are sold.

ANSWER:

$$P = n(S - C) - F$$

$$P = 150 \times (£74.99 - £65.00) - £200$$

$$P = 150 \times £9.99 - £200$$

$$P = £1,498.50 - £200$$

$$\text{Profit} = \text{£1,298.50}$$

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Question 2:

Nurses use the formula below to calculate the size of a dose of medicine for a child less than 1 year old.

$$c = \frac{am}{150}$$

where c is the child's dose (in mg)

a is the adult dose (in mg)

and m is the age of the child in months.

Use the formula above to calculate the dose for a **6 month old child** when the **adult dose is 200mg**.

ANSWER:

$C = \frac{am}{150}$
$C = \frac{200 \times 6}{150}$
$\frac{1200}{150} = 8\text{mg}$

The exercise ends. Check your work.