

**Starter**

Put the correct sign in the gap.

'<' or '=' or '>'

- 20% of 80 80% of 20
- 55% of 80 51% of 90
- 22% of 140 76% of 40
- 3% of 600 33% of 54

Top Tips!

% always write down
the multiplier
 $7\% = 0.07$

*Quality of mathematical organisation
and communication questions*
Only one equal sign per line.

Example Find 20% of 40% of £400
 $400 = £80 = £32$ ✗

Find 20% of 40% of £400
 $20\% \text{ of } 400 = £80$
 $40\% \text{ of } £80 = £32$ ✓

Skills:

- 400 people pay £32 each for tickets to see 'Big Mix' 250 people bought full price tickets the rest bought tickets at 50% of the full price. What was the total amount paid by the 400 fans?
- A holiday cost £560. If Sam pays in full he receives a 7% discount. Sam paid for the holiday in full how much did he have to pay.

Find 20% of 60% of £400

- Find $\frac{1}{4}$ of $\frac{1}{2}$ of £120

Examination Question:**2014 January Link Applications U2 Higher Q6b**

You will be assessed on the quality of your written communication in this part of the question.

Free-world Travel charges each customer £130 for travel insurance.

Last month, *Free-world Travel* had 6000 customers.

Free-world Travel has previously noticed that 80% of its customers buy holiday insurance.

Of these customers, approximately 30% claim on their travel insurance.

Free-world Travel typically pays out between £400 and £500 for each claim.

Free-world Travel needs to estimate how much profit or loss they are likely to make from travel insurance last month.

Calculate this estimate. You must show all your working. [8]

Assessment for Learning**Video / QR code**

**Starter**

Put the correct sign in the gap.

'<' or '=' or '>'

- a. (16) 20% of 80 = 80% of 20
(16)
- b. (44) 55% of 80 < 51% of 90 (45.9)
- c. (30.8) 22% of 140 > 76% of 40 (30.4)
- d. (18) 3% of 600 > 33% of 54 (17.82)

Top Tips!

% always write down
the multiplier
7% = 0.07

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Example Find 20% of 40% of £400
400 = £80 = £32 ✗

Find 20% of 40% of £400
20% of 400 = £80
40% of £80 = £32 ✓

Skills:

1. 400 people pay £32 each for tickets to see 'Big Mix' 250 people bought full price tickets the rest bought tickets at 50% of the full price. What was the total amount paid by the 400 fans?

$$250 \times £32 = 8000$$

$$50\% \text{ of } £32 = £16$$

$$150 \times £16 = 2400$$

$$\text{Total} = £10\,400$$

2. A holiday cost £560. If Sam pays in full he receives a 7% discount. Sam paid for the holiday in full how much did he have to pay.

$$560 \times 0.93$$

$$= £520.80$$

3. Find 20% of 60% of £400
- $$0.20 \times 0.60 \times 400$$
- $$= £48$$

4. Find $\frac{1}{4}$ of $\frac{1}{2}$ of £120

$$\frac{1}{2} \text{ of } 120 = £60$$

$$\frac{1}{4} \text{ of } £60 = £15$$

Examination Question:**2014 January Link Applications U2 Higher Q6b**

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Free-world Travel charges each customer £130 for travel insurance. Last month, *Free-world Travel* had 6000 customers.

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Of these customers, approximately 30% claim on their travel insurance.

Free-world Travel typically pays out between £400 and £500 for each claim.

Free-world Travel needs to estimate how much profit or loss they are likely to make from travel insurance last month.

Calculate this estimate. You must show all your working. [8]

Total Income from 6000 customers

$$6000 \times £130$$

$$= £780,000$$

Number of people buying travel insurance

$$80\% \text{ of } 6000$$

$$= 4800 \text{ people}$$

Number of people making a claim

$$30\% \text{ of } 4800$$

$$= 1440 \text{ people}$$

Estimate of average claim £450

Total cost of claims

$$£450 \times 1440$$

$$= £648,000$$

***Free-World Travel* makes a profit of**

$$£780,000 - £648,000$$

$$= £132,000$$

Assessment for Learning

Video / QR code