

- 1) Decide if each calculation is true or false. Explain your reasoning.



a) $0.5 \times 10 = 5$	b) $5.6 \times 100 = 56$	c) $0.65 \times 1000 = 650$
d) $3.05 \times 100 = 305$	e) $50.3 \times 10 = 5.03$	f) $0.005 \times 1000 = 50\,000$

- 2) Are these comparison statements correct? Explain your reasoning. Using powers of ten, what could you change to make it correct?

$$\boxed{24.5 \times 10} < \boxed{24.9 \times 100} < \boxed{0.251 \times 1000}$$

$$\boxed{76 \times 100} > \boxed{0.07 \times 1000} < \boxed{0.69 \times 100}$$

- 3) A new television costs £175. Is Francis correct in her reasoning? Explain how you worked this out.



If I save £7.50
for 20 weeks, I will
have enough money
to buy the TV.



1)



I think the missing number in this calculation is 3.

Do you agree? Explain your reasoning.

$$6.705 \times 100 + 0.1 \times \boxed{} \div 10 = 201.18$$

2)



I am thinking of a number. I multiply it by 10 and then add 50. I then divide it by 100. I get 0.907 as my answer. What number did I start with?

I think 40.7 was your starting number.



Do you agree? Explain your reasoning.

3) When you divide a three-digit number by 100, the answer will be a decimal.

Prove if this statement is always, sometimes or never true. Explain your reasoning and support this with examples.
