Upper and lower bounds: Application of skills

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Maths

Upper and lower bounds: Application of skills

1. The mass of an orange is 70 g rounded to the nearest 10 grams. Complete the error interval for the mass (m) of the orange.

_____ ≤ m <_____

2. A square has sides lengths of 5.6 cm rounded to the nearest millimetre.

a) What is its least possible area?

b) What is its least possible perimeter?

3.

A = 11.3 to three significant figures

B = 3.4 to one decimal place

Find the upper and lower bounds for each of the calculations.

a) A – B

c) A ÷ B

b) AB

d) 4B – A

Answers

Upper and lower bounds: Application of skills

1. The mass of an orange is 70 g rounded to the nearest 10 grams. Complete the error interval for the mass (m) of the orange.

65 g ≤ m < 75 g

2. A square has sides lengths of 5.6 cm rounded to the nearest millimetre.

a) What is its least possible area?

30.8025 cm^2

b) What is its least possible perimeter?

22.2 cm

3.

A = 11.3 to three significant figures

B = 3.4 to one decimal place

Find the upper and lower bounds for each of the calculations.

a) A – B

LB 7.8
UB 8

c) A ÷ B

LB 3.26087
UB 3.38806

b) AB

LB 37.6875
UB 39.1575

d) 4B – A

LB 2.05
UB 2.55