

TGAU - Numeracy and Mathematics
Topic: Rounding and estimation

Tier: Intermediate

Grade:D



Starter:
 Round the following to 2 decimal places:
 1) 6.723999 →
 2) 83.9292 →
 Round the following to 2 significant figures:
 1) 6.723999 →
 2) 83.9292 →

Top tips! DON'T CALCULATE THE EXACT ANSWER!
 Round the numbers to 1 significant figure before rounding:
 e.e. $\frac{6.3 \times 84.32}{0.483} \approx \frac{6 \times 80}{0.5} = \frac{480}{0.5} = 960$
 The first significant figure is in bold print
 Tua
 Remember that $\div 0.5$ yr un fath a x 2

Skills:
 Estimate the following:
 1. $\frac{387 \times 193.7}{1.8}$
 2. $\frac{1.96 \times 18.3}{0.0456}$
 3. Show that $7.02^2 - 3.9^2$ is approximately 33

Exam Question:
 2014 June link – Applications Unit 2 Higher Q1
 At the time when the pyramids were built, the Egyptians used different measures from those we use today. It is believed that:
1 pyramid inch = 1.0010846752 inches
1 pyramid cubit = 25 pyramid inches.
 We also know that
1 inch = 2.54 cm.
 Complete the following table. [4]

Measure	Equivalent to
1 pyramid cubit	inches, correct to 3 decimal places
1 pyramid inch	cm, correct to 4 significant figures

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Starter:

Round the following to 2 decimal places:

- 3) 6.723999 → 6.72
- 4) 83.9292 → 83.93

Round the following to 2 significant figures:

- 3) 6.723999 → 6.7
- 4) 83.9292 → 84

Top tips! DON'T CALCULATE THE EXACT ANSWER!

Round the numbers to 1 significant figure before rounding:

$$\text{e.e. } \frac{6.3 \times 84.32}{0.483} \approx \frac{6 \times 80}{0.5} = \frac{480}{0.5} = 960$$

The first significant figure is in bold print

Tua

Remember that ÷ 0.5 yr un fath a x 2

Skills:



E estimate the following:

$$4. \frac{387 \times 193.7}{1.8} = \frac{400 \times 200}{2} = \frac{80000}{2} = 40000$$

$$5. \frac{1.96 \times 18.3}{0.0456} = \frac{2 \times 20}{0.05} = \frac{40}{0.05} = 800$$

6. Show that $7.02^2 - 3.9^2$ is approximately 33
 $7^2 - 4^2 = 49 - 16 \approx 33$

Exam Question:

2014 June link – Applications Unit 2 Higher Q1



At the time when the pyramids were built, the Egyptians used different measures from those we use today. It is believed that:

$$1 \text{ pyramid inch} = 1.0010846752 \text{ inches}$$

$$1 \text{ pyramid cubit} = 25 \text{ pyramid inches.}$$

We also know that

$$1 \text{ inch} = 2.54 \text{ cm.}$$

Complete the following table. [4]

Measure	Equivalent to
1 pyramid cubit	25.027 inches, correct to 3 decimal places
1 pyramid inch	2.543 cm, correct to 4 significant figures

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