

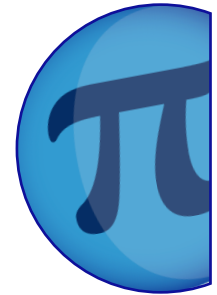


Counting Crowds

NAME:

CLASS:

DATE:



Basic

It is not always possible or necessary to calculate an exact answer to a calculation. Often an approximation or an estimate of an answer is all that is required. Sometimes this is actually the more useful answer.

1) Carry out the following calculations and give your answers correct to:

- a) the nearest £1.00 b) the nearest penny c) the nearest £10.00

- 1) $£100 \div 3$ 2) $£2300 \div 7$ 3) $£750 \div 11$

2) Round each number in the calculation off to the nearest whole number. Using the rounded numbers calculate a sensible estimate for each question. Do not use a calculator.

- a) 1.87×13.01 b) $23.79 \div 4.12$ c) 12.43×9.67 d) $(2.79 + 6.6) \times 2.11$

3) Use a calculator to find the accurate answer to the calculations above.

4) Round each of the accurate answers to the nearest whole number and find the difference between your estimates and your rounded accurate answers.

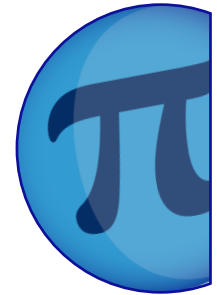


Counting Crowds

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Core

1) Round each number in the calculation off to the nearest whole number. Using the rounded numbers calculate a sensible estimate for each question. Do not use a calculator.

- a) 1.87×13.01 b) $23.79 \div 4.12$ c) 12.43×9.67 d) $(2.79 + 6.6) \times 2.11$

2) Use a calculator to find the accurate answer to the calculations above.

3) Round each of the accurate answers to the nearest whole number and find the difference between your estimates and your rounded accurate answers.

4) Round the following distances to the nearest:

- a) 10km b) 100km c) 1000km

City	Distance from London	a)	b)	c)
Athens	2404km			
Vancouver	7531km			
Cape Town	9635km			

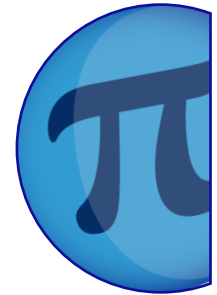


Counting Crowds

NAME:

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Advanced

1) Round each number in the calculation off to the nearest whole number. Using the rounded numbers calculate a sensible estimate for each question. Do not use a calculator.

- a) 1.87×13.01 b) $23.79 \div 4.12$ c) 12.43×9.67 d) $(2.79 + 6.6) \times 2.11$

2) Use a calculator to find the accurate answer to the calculations above.

3) Round each of the accurate answers to the nearest whole number and find the difference between your estimates and your rounded accurate answers.

4) Using sensible estimates give an approximate answer to the following questions:

a) On a long haul flight an aeroplane flew 7308km in 8.4 hours. Estimate how many kilometres it flew each hour.

b) A square has edges of length 2.89m. What is the approximate area?

c) A theatre sold 92 cups of coffee during the interval at 49p a cup. Estimate the amount they made on coffee.

d) Sam rode 326km in 11 days. Roughly how many kilometres did he ride each day?



Counting Crowds

ANSWERS

Basic

1)

1a) £33

2a) £329

3a) £68

1b) £33.33

2b) £328.57

3b) £68.18

1c) £30

2c) £330

3c) £70

2a) $2 \times 13 = 26$

b) $24 \div 4 = 6$

c) $12 \times 10 = 120$

d) $(3 + 7) \times 2 = 20$

3a) 24.3287

b) 5.7742...

c) 118.941

d) 19.8129

4a) 24; difference = 2

b) 6; difference = 0

c) 119; difference = 1

d) 20; difference = 0

Core

1a) $2 \times 13 = 26$

b) $24 \div 4 = 6$

c) $12 \times 10 = 120$

d) $(3 + 7) \times 2 = 20$

2a) 24.3287

b) 5.7742...

c) 118.941

d) 19.8129

3a) 24; difference = 2

b) 6; difference = 0

c) 119; difference = 1

d) 20; difference = 0

4)

City	Distance from London	a)	b)	c)
Athens	2404km	2400km	2400km	2000km
Vancouver	7531km	7530km	7500km	8000km
Cape Town	9635km	9640km	9600km	10,000km

Advanced

1a) $2 \times 13 = 26$

b) $24 \div 4 = 6$

c) $12 \times 10 = 120$

d) $(3 + 7) \times 2 = 20$

2a) 24.3287

b) 5.7742...

c) 120.1981

d) 19.8129

3a) 24; difference = 2

b) 6; difference = 0

c) 120; difference = 0

d) 20; difference = 0

4a) Speed = distance \div time; speed $\approx 7000 \div 8 \approx 875$ km/h.

b) Area $\approx 3 \times 3$ 9m².

c) 100 cups at 50p: amount made on coffee $\approx 100 \times 50$ p \approx £50.

d) Distance rode in one day $\approx 300 \div 10$ 30km.