Rounding: Decimal Places and Significant Figures

ANSWERS

1

Round 8.276 to 2 decimal places.

Cut after the 2nd decimal place.
Box the deciding digit.

O	t	h	th
8 .	2	7	6
8 .	2	8	

6 is 5 or more, so round up

Answer: 8.28

2

Round 15.342 to 1 decimal place.

T	O	t	h	th
1	5 .	3	4	2
1	5 .	3		

4 is less than 5, so the 3 stays

Answer: 15.3

3

Round 0.6058 to 3 decimal places.

O	t	h	th	tth
0 .	6	0	5	8
0 .	6	0	6	

8 is 5 or more, so round up

Answer: 0.606

4

Round 3.497 to 2 decimal places.

O	t	h	th
3 .	4	9	7
3 .	5	0	

7 is 5 or more, so round up

Answer: 3.50

5

Round 6382 to 2 significant figures.

Ring the first significant figure. Cut after the 2nd.
Box the deciding digit.

Th	H	T	O
6	3	8	2
6	4	0	0

8 is 5 or more, so round up

Answer: 6400

6

Round 0.04729 to 2 significant figures.

O	t	h	th	tth	hth
0 .	0	4	7	2	9
0 .	0	4	7		

2 is less than 5, so the 7 stays

Answer: 0.047

7

Round 27.48 to 1 significant figure.

T	O	t	h
2	7 .	4	8
3	0 .		

7 is 5 or more, so round up

Answer: 30

8

Round 40 853 to 2 significant figures.

TTh	Th	H	T	O
4	0	8	5	3
4	1	0	0	0

8 is 5 or more, so round up

Answer: 41 000

Rounding: Decimal Places and Significant Figures *further practice*

ANSWERS

9

Round 14.726 to

2 decimal places: 14.73

2 significant figures: 15

10

Round 0.004618 to 2 significant figures. How many decimal places does your answer have?

Rounded: 0.0046

Decimal places: 4

11

Mount Everest is 8849 m high. A quiz gives this height to 2 significant figures. Write the height the quiz gives.

Answer: 8800 m

12

A runner finishes a 400 m race in 48.097 seconds. The scoreboard shows the time to 2 decimal places. Write the time on the scoreboard.

Answer: 48.10 seconds

13

A number is 6.35 to 2 decimal places and 6.4 to 2 significant figures. Which of these could it be?

6.346	6.358
6.354	6.349

Answer: 6.354

14

Seven identical parcels have a total mass of 12.5 kg. Work out the mass of one parcel. Give your answer to 2 decimal places.

12.5 ÷ 7 = 1.785714...

Answer: 1.79 kg

15

Ava rounds 0.0507 to 2 significant figures and writes 0.05. What mistake has Ava made? Write the correct answer.

She rounded to 2 decimal places.
The zeros before the 5 are not significant. It is 0.051.

16

Write a number with 4 decimal places that gives the same answer when it is rounded to 2 decimal places and to 2 significant figures. Explain how you chose it.

0.4731: both give 0.47.
The first significant figure is the first decimal place.