

Key Words

Estimate, Rounding, Significant figures, Decimal places, Consecutive

Hegarty Maths

17, 56, 130, 131, 774 & 775

Round to nearest 10, 100, 1000

Rounding to the nearest 10, 100, and 1000 allows us to APPROXIMATE the size of a number.

We need to identify the number to the right of the tens, hundreds or thousands column depending on what we are rounding to.

If this number is LESS THAN 5, round down.

If this number is 5 or MORE THAN 5, round up

a) 6,666 rounded to the nearest 100 is b) 75,652 rounded to the nearest 10,00 is c) 286.5 rounded to the nearest 10 is d) 18,685 rounded to the nearest 100 is e) 758 rounded to the nearest 10 is f) 21,753 rounded to the nearest 100 is g) 8,562,268 rounded to the nearest 10 is **Round to a required number of decimal places**

Use the same system as above for rounding

1478.2735 is 1478.3 rounded to 1 decimal place (the nearest tenth)

1478.2735 is 1478.27 rounded to 2 decimal places (the nearest hundredth)

1478.2735 is 1478.274 rounded to 3 decimal places (the nearest thousandth)

Complete the table.

Number	Rounded to 1 decimal place	Rounded to 2 decimal places	Rounded to 3 decimal places
0.3287			
7.01981			
83.486741			

Round to a required number of significant figures

Round 357 to 1 significant figure.

Identify the number to the right of the place value column you are rounding to

We are rounding to 1 significant figure so we identify the number to the right of 3 in the hundreds column as this is the first significant figure. This is a 5

If it is a 4 or less we round down, if it is a 5 or more we round up

As the digit is a 5 we round up to 400.

Write the answer.

357 is **400** rounded to 1 significant figure.

Decimal Place Value Chart



Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	.	tenths	hundredths	thousandths	ten thousandths	hundred thousandths
HTH	TTh	Th	H	T	O	.	t	h	th	tth	hth
100,000	10,000	1,000	100	10	1	.	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1,000}$	$\frac{1}{10,000}$	$\frac{1}{100,000}$
Whole Number Part						Decimal Point	Fractional Part				

Number	Place value of 1st significant figure	Number rounded to 1 significant figure
<u>7</u> 3	Tens	70
730		
758		
7,300		
7,780		
704,000		
7.9		
0.71		

Estimation R

Round to 1 significant figure to estimate

$$21.4 \times 3.1 \approx 20 \times 3 \approx 60$$

The equal sign changes to show it is an estimation

This is an **underestimate** because both values were rounded down

To estimate is to find something
FIND AN ANSWER CLOSE TO
THE EXACT ANSWER

\approx means

___ APPROXIMATELY
EQUAL TO ___

a) 3.52×18.3

b) $812 \div 7.51$

c) $\frac{205 + 3182}{3.9}$

d) $\frac{26}{12.4} \times 7.2$

	Estimate	Exact
a)		
b)		
c)		
d)		