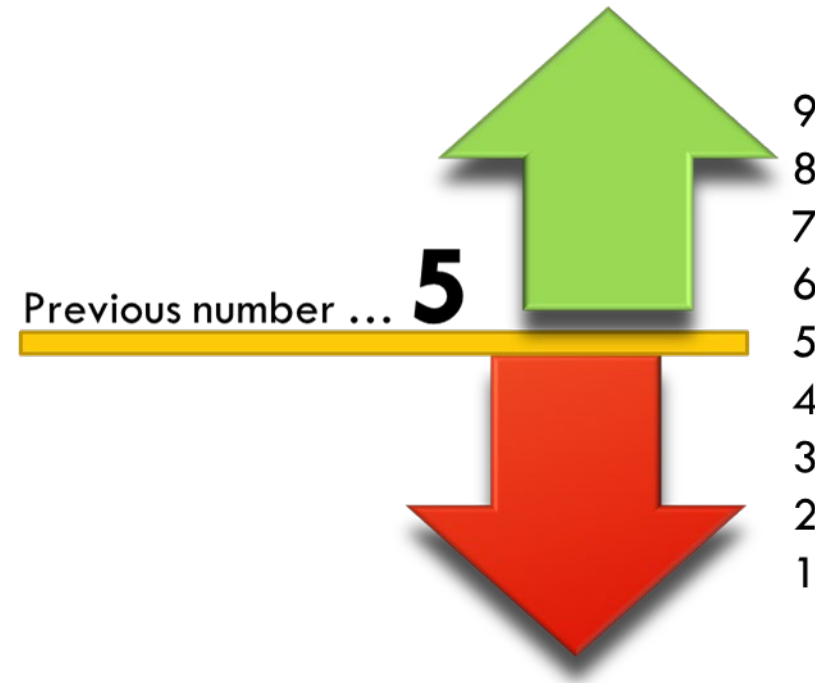


ROUNDING OFF

Lecturer: Mark Gillan

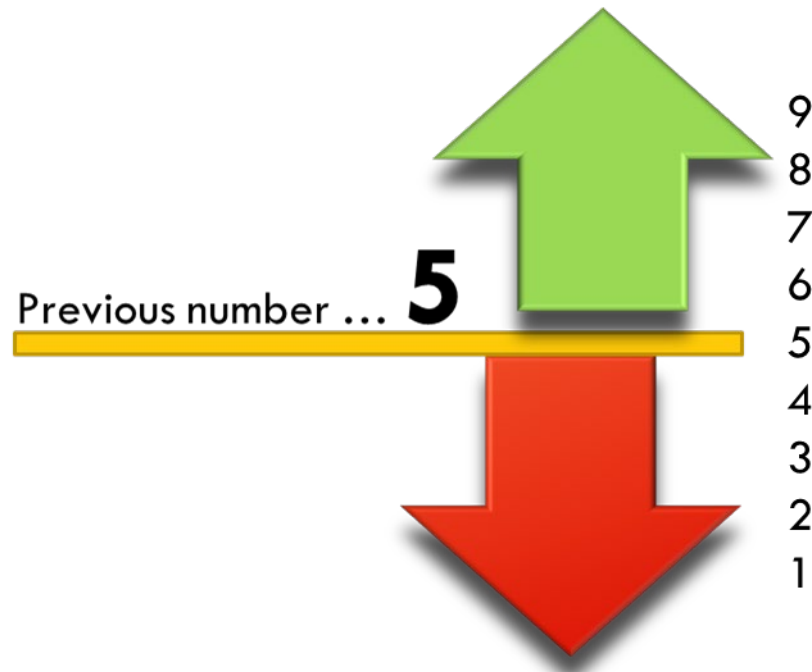
THE GENERAL RULE

- Rounding off is also known as Rounding Up because of this general rule ...
- If the previous decimal place has a number of 5 or greater then ROUND UP
- If the previous decimal place has a number LESS than 5 then STAY DOWN
- Consider if the number is closer to the number above or below



EXAMPLE

Rounding up or stay down guide



Example, rounding off to whole number from 2 decimal places

15.56



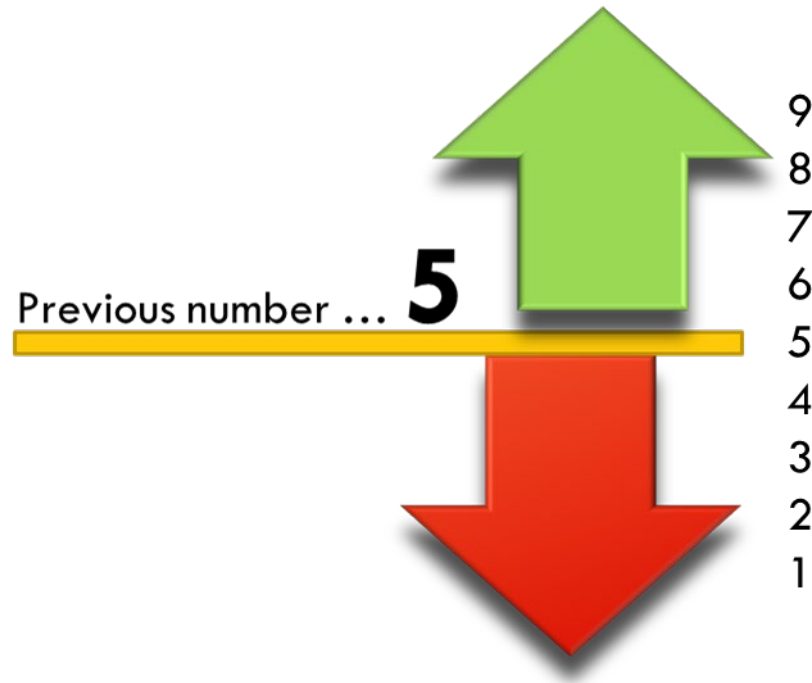
Closer to 16

NOT closer to 15



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EXAMPLE - RESOLVED



- The number 15.56 with 2 decimal places (2 number to the right of the decimal point)
- Closer to 16 than 15
- For example, if someone offered suggested the cost of a car was 'only' 15 thousand but the display on the windscreen said 15,999 ... What would you say?
- We round off on a daily basis without even thinking about it
- I would say, the car is closer to 16,000 and not near 15,000 in comparison but if you wish to sell the car to me for 15,000 then that will make my day!!!



ON THE SAME BASIS — TRY THESE

Rounding off to whole number

- 1.7
- 44.88
- 397.9
- 967.3
- 5021.22
- 144.899
- 2045.301
- 28,999.95

The answers to check

- 2 (closer to whole number 2 than 1)
- 45 (the 8 after the decimal place is closer up the way)
- 398 (definitely closer up the way from .9)
- 967 (closer to 967 than up to 968)
- 5021 (again, closer to 5021 than up)
- 145 (closer to 145 than 144 going by decimal places)
- 2045 (closer to 2045 than moving up)
- 29,000 (the decimal place pushes number right up)



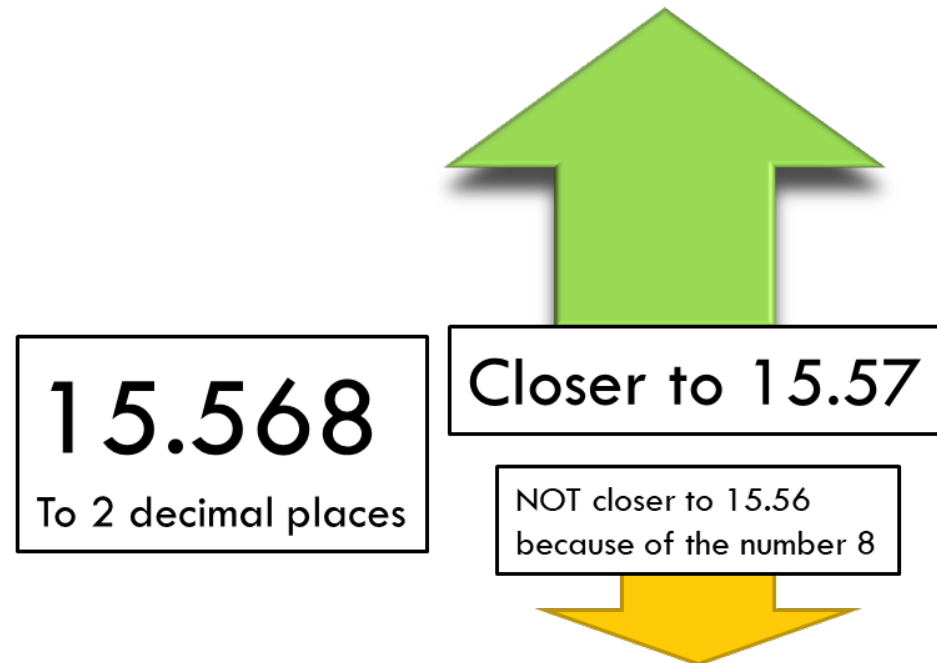
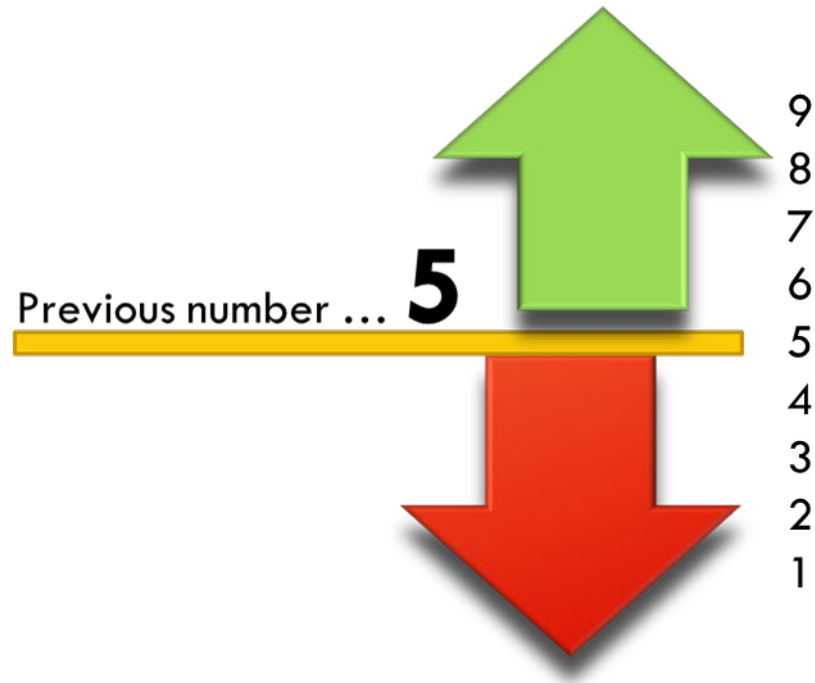
DECIMAL PLACES

- We have seen how to round up or round down from decimal places to a whole number
- Now we will look at rounding off to a given number of decimal places
- Quite often, we will input number into a calculator and obtain quite a number of decimal places in return for the output
- Currency for example, tends to use a set decimal place such as US Dollars uses dollars and then 2 decimal places for cents, Pounds Sterling has pounds and pence.
Therefore, £25.38 is commonly known as:
“Twenty-Five Pounds and Thirty-Eight Pence”
- We no longer have any currency in this country for parts smaller than 1 pence, so we work to only 2 decimal places and no more. We round up or down.

Hundredth
↓
5.63**5**457 *Round up.*
≈ 5.64



IN SIMILAR FASHION



NOW TRY THESE ...

Put these into the require decimal places (d.p.) as noted:

- 45.789 to 2 d.p.
- 12,208.987 to 2 d.p.
- 94.8379 to 3 d.p.
- 18342.038898 to 4 d.p.
- 499.30224 to 3 d.p.
- 21.013 to 2 d.p.
- 5201.894682 to 5 d.p.
- 884.789824 to 4 d.p.
- 150.97272 to 2.d.p.

Record the answers:



NOW TRY THESE ...

Put these into the require decimal places (d.p.) as noted:

- 45.789 to 2 d.p.
- 12,208.987 to 2 d.p.
- 94.8379 to 3 d.p.
- 18342.038898 to 4 d.p.
- 499.30224 to 3 d.p.
- 21.013 to 2 d.p.
- 5201.894682 to 5 d.p.
- 884.789824 to 4 d.p.
- 150.97272 to 2.d.p.

Answers:

- 45.79
- 12,208.99
- 94.838
- 18342.0389
- 499.302
- 21.01
- 5201.89468
- 884.7898
- 150.97



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