





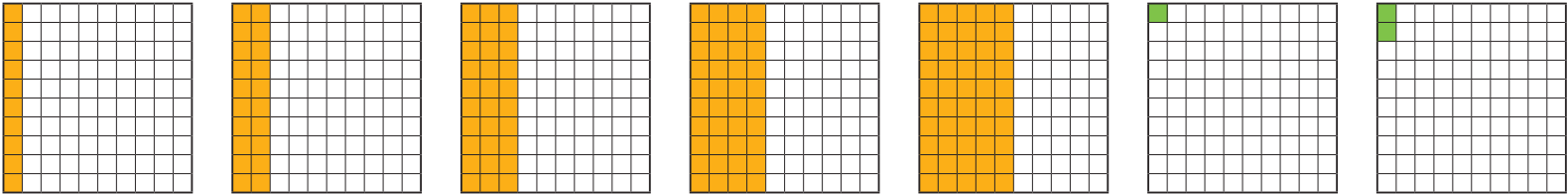
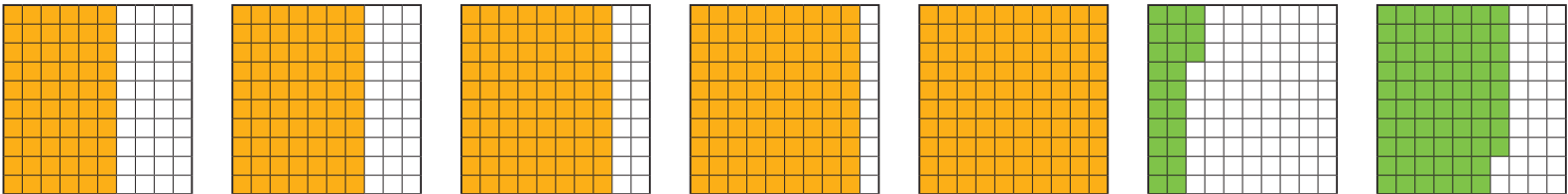


Decimals – Year 4

Knowledge Organiser

| Key Vocabulary | Tenths and Hundredths | | Fraction and Decimal Equivalents | | | | | | | | | | | |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|--|--|--|--|--|--|--|--|------------------------------------------------------------------------------------------------------------|--|--|
| tenths | Tenths | $\frac{0}{10}$ $\frac{1}{10}$ $\frac{2}{10}$ $\frac{3}{10}$ $\frac{4}{10}$ $\frac{5}{10}$ $\frac{6}{10}$ $\frac{7}{10}$ $\frac{8}{10}$ $\frac{9}{10}$ $\frac{10}{10}$ | | | | | | | | | |  = $\frac{1}{2}$ = 0.5 | | |
| hundredths | |  0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1 | | | | | | | | | |  = $\frac{1}{4}$ = 0.25 | | |
| decimal tenths | Hundredths | $\frac{0}{10}$ $\frac{1}{100}$ $\frac{2}{100}$ $\frac{3}{100}$ $\frac{4}{100}$ $\frac{5}{100}$ $\frac{6}{100}$ $\frac{7}{100}$ $\frac{8}{100}$ $\frac{9}{100}$ $\frac{10}{100}$ | | | | | | | | | |  = $\frac{3}{4}$ = 0.75 | | |
| decimal hundredths | |  0 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1 | | | | | | | | | |  = $\frac{1}{10}$ = 0.1 | | |
| decimal equivalents | Tenth and Hundredth Decimal Equivalents | | | | | | | | | | | | | |
| part-whole model |  | | | | | | | | | | | | | |
| rounding | $\frac{1}{10} = \frac{10}{100} = 0.1$ $\frac{2}{10} = \frac{20}{100} = 0.2$ $\frac{3}{10} = \frac{30}{100} = 0.3$ $\frac{4}{10} = \frac{40}{100} = 0.4$ $\frac{5}{10} = \frac{50}{100} = 0.5$ $\frac{1}{100} = 0.01$ $\frac{2}{100} = 0.02$ | | | | | | | | | | | | | |
| decimal point |  | | | | | | | | | | | | | |
| place value | $\frac{6}{10} = \frac{60}{100} = 0.6$ $\frac{7}{10} = \frac{70}{100} = 0.7$ $\frac{8}{10} = \frac{80}{100} = 0.8$ $\frac{9}{10} = \frac{90}{100} = 0.9$ $\frac{10}{10} = \frac{100}{100} = 1$ $\frac{23}{100} = 0.23$ $\frac{68}{100} = 0.68$ | | | | | | | | | | | | | |

Dividing by 10

| | | |
|------|------|-----------|
| Tens | Ones | $\div 10$ |
| 8 | 5 | |

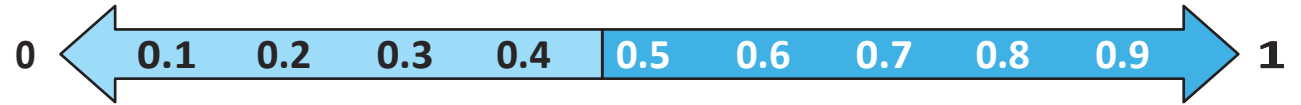
| | | |
|-----------|------|-----------|
| $\div 10$ | | |
| Tens | Ones | Tenths |
| | 8 | 5 |
| | | $\div 10$ |

Dividing by 100

| | | |
|------|------|------------|
| Tens | Ones | $\div 100$ |
| 8 | 5 | |

| | | | |
|------------|------|------------|------------|
| $\div 100$ | | | |
| Tens | Ones | Tenths | Hundredths |
| | 0 | 8 | 5 |
| | | $\div 100$ | |

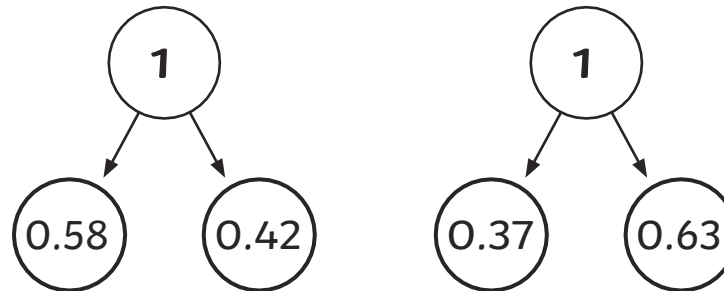
Rounding Decimals



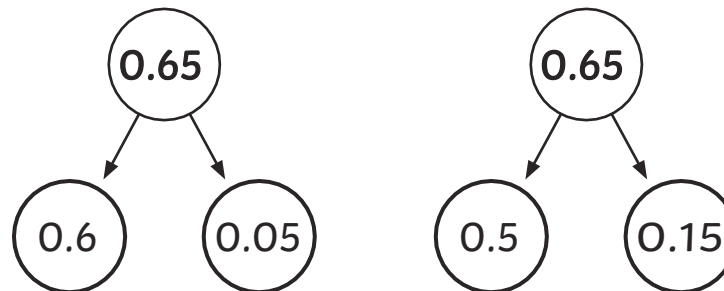
If the tenths digit is 1, 2, 3 or 4, we round **down** to the nearest whole number.

If the tenths digit is 5, 6, 7, 8 or 9, we round **up** to the nearest whole number.

Make a Whole



Partitioning Tenths and Hundredths



Comparing Numbers with Two Decimal Places

