

Year 8 – Maths – Spring 2

Unit 10 - % increase and decrease			
No.	Percentage	Fraction	Decimal
10.1	25%	$\frac{1}{4}$	0.25
10.2	50%	$\frac{1}{2}$	0.5
10.3	75%	$\frac{3}{4}$	0.75
10.4	12.5%	$\frac{1}{8}$	0.125
10.5	20%	$\frac{1}{5}$	0.2
10.6	33. $\dot{3}$	$\frac{1}{3}$	0. $\dot{3}$
10.7	66. $\dot{6}$	$\frac{2}{3}$	0. $\dot{6}$
10.8	10%	$\frac{1}{10}$	0.1
10.9	20%	$\frac{2}{10} = \left(\frac{1}{5}\right)$	0.2
10.10	30%	$\frac{3}{10}$	0.3
10.11	40%	$\frac{4}{10} = \left(\frac{2}{5}\right)$	0.4
10.12	50%	$\frac{5}{10}$	0.5
10.13	60%	$\frac{6}{10} = \left(\frac{3}{5}\right)$	0.6
10.14	70%	$\frac{7}{10}$	0.7
10.15	80%	$\frac{8}{10} = \left(\frac{4}{5}\right)$	0.8
10.16	90%	$\frac{9}{10}$	0.9
10.17	100%	1 whole	1

Unit 10 - % increase and decrease (cont.)			
No.	Question	Answer	Example
10.18	How do you find 1% of an amount?	Divide by 100	1% of 70. $70 \div 100 = 0.7$
10.19	How do you find 10% of an amount?	Divide by 10	10% of 70. $70 \div 10 = 7$
10.20	How do you find 50% of an amount?	Divide by 2	50% of 70. $70 \div 2 = 35$
10.21	How do you find 25% of an amount?	Divide by 4	25% of 70. $70 \div 4 = 17.5$
10.22	How do you express a quantity as a percentage of another?	1. Represent the quantities as a fraction 2. Convert the fraction to decimal	I score 7 out of 25 on a test $\frac{7}{25} = \frac{28}{100} = 28\%$
10.23	How do you compare and order FDP?	Convert them all to be written in the same representation.	20% or $\frac{2}{5}$? $20\% = \frac{2}{10} = \frac{1}{5}$ $\frac{2}{5} > 20\%$
10.24	How do you increase by a %?	1. Find the percentage 2. Add it on	Increase £50 by 20% $20\% = \text{£}10$ $\text{£}50 + \text{£}10 = \text{£}60$
10.25	How do you decrease by a %?	1. Find the percentage 2. Take it away	Decrease £50 by 20% $20\% = \text{£}10$ $\text{£}50 - \text{£}10 = \text{£}40$
10.26	How do you calculate % change?	$\frac{\text{new} - \text{original}}{\text{original}} \times 100$	Was £200, now £250. $\frac{250 - 200}{200} \times 100 = 25\%$
10.27	How do you calculate reverse %s?	1. Divide the new amount by its total % 2. Multiply by 100. The original is always 100%.	After 20% increase, now costs £180. What was the original? $\frac{180}{120} \times 100 = 150$

Unit 11 - ratio			
No.	Question	Answer	Example
11.1	How do you represent a ratio?	1. Count how many of each part you're given 2. Write it as a ratio in the order specified.	Represent the following as a ratio Black : White 5 : 3
11.2	How do you represent a ratio as a fraction?	1. Add the total number of parts together 2. Each part of the ratio represents the numerator	2:3 as a fraction $2 + 3 = 5$ $\frac{2}{5}$ and $\frac{3}{5}$
11.3	How do you divide a quantity into a ratio?	1. Divide the quantity by the total number of parts 2. Multiply by the number of parts in each share of the ratio	20 shared into the ratio 2:3 $2 + 3 = 5$ $20 \div 5 = 4$ (1 share) $4 \times 2 = 8$ $4 \times 3 = 12$
11.4	Speed = ...	Speed = $\frac{\text{distance}}{\text{time}}$	Distance = 70m, time = 2 hours $S = \frac{70}{2}$ $S = 35m/h$