



# Foundation Y10 Mathematics Homework



## HALF-TERM 1

### Week 1

#### N6.2 Sharing in a Ratio

Molly, Paige and Demi share 42 sweets in the ratio 3 : 2 : 1  
Work out the number of sweets that each of them receives.

Genie Q2

#### N6.2 Sharing in a Ratio

Jerry and Mick share some money in the ratio 2 : 3  
Mick gets £900  
Work out how much money Jerry gets.

Genie Q5

#### A1.9 Simplifying Harder Expressions

Simplify  $p^3 \times p^5$

Simplify  $2m^2 \times 5n^6$

Simplify  $\frac{16m^7n^3}{4m^3n}$

#### A1.9 Simplifying Harder Expressions

Expand the following expressions:

$$3(x + 4)$$

$$x(x^2 + 2)$$

$$(y + 5)(y + 7)$$

### Hegarty - Week 2

Skills Check – 692 & 693 Converting Length

New Knowledge – 131 Estimate Complex Calculations

## Week 3

### SP4.3 Combined Events

Two tetrahedral (4-sided) dice are rolled and their scores are added together. Complete the space to show all the possible outcomes.

		Dice 1			
		1	2	3	4
Dice 2	1				
	2				
	3				
	4				

What is the probability of getting 6 or above?

### N4.4 +/- Fractions

DO NOT USE A CALCULATOR

Work out  $\frac{4}{9} + \frac{3}{5}$

Work out  $\frac{1}{5} + \frac{2}{7}$

### N4.4 +/- Fractions

DO NOT USE A CALCULATOR

Work out  $2\frac{1}{5} + 1\frac{1}{7}$

## Hegarty - Week 4

Skills Check – 102 Index Form (1)

New Knowledge – 864 & 865 Scale Diagrams

## Week 5

<p style="text-align: center;"><b>N4.6 Dividing Fractions</b></p> <p style="text-align: center;">DO NOT USE A CALCULATOR</p> <p>Work out <math>\frac{7}{8} \div \frac{3}{4}</math></p>  <p>Work out <math>\frac{1}{7} \div \frac{3}{4}</math></p>	<p style="text-align: center;"><b>N4.6 Dividing Fractions</b></p> <p style="text-align: center;">DO NOT USE A CALCULATOR</p> <p>Work out <math>1\frac{1}{6} \div \frac{2}{3}</math></p>
<p style="text-align: center;"><b>N2.6 Standard Form</b></p> <p style="text-align: center;">DO NOT USE A CALCULATOR</p> <p><b>1</b> (a) Write <math>1.2 \times 10^5</math> as an ordinary number. (b) Write 0.003 in standard form.</p> <hr/> <p><b>2</b> (a) Write 42 900 000 in standard form. (b) Write <math>3.61 \times 10^{-3}</math> as an ordinary number.</p>	<p style="text-align: center;"><b>N2.6 Standard Form</b></p> <p style="text-align: center;">DO NOT USE A CALCULATOR</p> <p style="text-align: center;">Write these numbers in order of size. Start with the smallest number.</p> <p><math>3.5 \times 10^2</math>                  <math>0.035 \times 10^5</math></p> <p><math>350 \times 10^{-2}</math>                  <math>35 \times 10^0</math></p>

## Hegarty - Week 6

Skills Check – 780-783 Substitution

New Knowledge – 105 & 106 & 107 Index Form

## Week 7

### NON-CALCULATOR YOU MUST SHOW YOUR WORKING

- 1 Calculate 50% of £480
- 2 Round 2658 to the nearest 10
- 3 Round 6.37 correct to 1 decimal place
- 4 Work out  $10 + 6 \times 2$
- 5 List the first 8 square numbers.
- 6 Work out  $38 \times 40$
- 7 Simplify the ratio 24 : 18
- 8 What will be the time 45 minutes after 2:20?
- 9 Work out  $12.34 \times 100$
- 10 Simplify  $3x + 2y - x + 3y$

## Half-Term Holiday

Consolidation - .....

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