Wrockwardine Wood
Year 11 Assessment 1

Section 1 Fractions

Calculate

1) $\frac{4}{7} \times 28$

.....

(2)

2) $1\frac{1}{2} + \frac{3}{4}$

.....

(2)

3) $5\frac{1}{2} - 3\frac{2}{3}$

.....

(3)

4) $4\frac{1}{2} \times \frac{1}{5}$

.....

(3)

5) $\frac{4}{5} \div \frac{1}{8}$

.....

(3)

Section 2 Factorising and Expanding

1) Expand $3x(2x + 5)$

.....

(2)

2) Factorise completely $8x^2 + 4xy$

.....

(2)

3) Expand and simplify $(m + 3)(m + 10)$

.....

(2)

4) Factorise $x^2 + 3x - 10$

.....

(2)

5) Solve the equation $x^2 - 12x + 27 = 0$

.....

(3)

Section 3 - Solving equations and Inequalities

Solve

1) $3x + 4 > 28$

(2)

2) $7(x + 2) = 7$

(2)

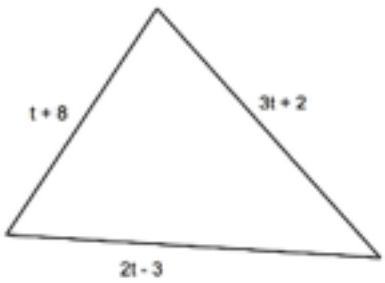
3) $5x - 7 = x + 9$

(2)

4) $\frac{2 - y}{5} = 1$

(3)

5) Find t



Perimeter = 37cm. Find t

(3)

Section 3 Substitution, Trial and Improvement.

1) Find the value of 3x - 4y when

(i) x = 6 and y = 3

(2)

(ii) x = 4 and y = -3

(2)

2) Work out the value of $2x + y^3$ when $x = -3$ and $y = 2$.

(2)

3) The equation

$$x^3 + 10x = 51$$

has a solution between 2 and 3
Use a trial and improvement method to find this solution.
Give your answer correct to 1 decimal place.
You must show **all** your working.

$x =$ .....

(Total 4 marks)

Section 4 Simultaneous Equations

1) $x + 6y = 33$
$2x + 5y = 31$

.....

(Total 4 marks)

2) $5x + 2y = 11$
$4x - 3y = 18$

.....

(Total 4 marks)