TRANSITION TO SIXTH FORM TASK

TRANSITION TASK

KEY PRE-KNOWLEDGE TOPICS

KEY TERMS TO LEARN

RECOMMENDED WEBSITES

PLACES TO VISIT

NECESSARY READING

BEYOND THE CLASSROOM

Maths Summer Work

In order for you to have the best possible start to your A-level Maths course, we need you to complete the following two worksheets (write the answers and working on the sheet), and bring them to your first Maths lesson in September. Many thanks.

1. Solve $1 - x = 5x - 3$

[3]

2. Solve $\dfrac{a-2}{3} = \dfrac{1-a}{2}$

[3]

3. Factorise $2x^2 + x - 15$

[2]

4. Factorise $3x^2y - 6xy + 12xy^2$

[2]

5. Write as a single fraction $\dfrac{2x+1}{3} + \dfrac{x-1}{4}$

[3]

6. Make u the subject of the formula $s = \frac{1}{2}(u + v)t$.

[4]

7. Make x the subject of the formula $g = \dfrac{1}{\sqrt{(a^2 - x^2)}}$

[4]

8. Make a the subject of the formula $b = \dfrac{a+x}{a+c}$

[4]

9. Simplify $\dfrac{y^2 - 1}{y^2 - y - 2}$

[4]

10. Solve $2x + 3y = -7$

$5x - 2y = 11$

[5]

11. Solve $2x + y = 2$, $x^2 + y^2 = 25$ simultaneously.

[6]

12   Rationalise $\dfrac{2+\sqrt{3}}{5-\sqrt{5}}$

[4]

13   Simplify $\left(\dfrac{y^{-4}}{y^{3}}\right)^{5}$

[2]