Tenbury High Ormiston Academy Maths Department

Stage 8 Home Learning project Summer term 1

Name: ………………………………………………….

Deadlines:…………………………………………….

Maths teacher: …………………………………………

…………………………………………..

LMG: …………………………………………………

…………………………………………..

If you have any problems with any of the tasks then please ask your class teacher or pop along to homework club on Tuesday, Wednesday or Thursday lunchtimes.

For assessment criteria please see the school websites new homework page.
All tasks should be completed in your maths homework book.

Task 1: Mathematical definitions

Write a definition for each of the following terms and give an example where possible.

Calculating Space	Algebraic Proficiency – straight lines
Circle	Equation
Pi	Function
Centre	Formula
Radius, diameter, Chord, circumference	Linear
(right) prism	Coordinate plane
Cross-section	Gradient
Cylinder	y-intercept
Polygon	Substitute
Solid	Quadratic
	Piece-wise linear
	Kinematic, Speed, distance

TASK 2: Maths challenge tasks – on separate document maths challenge task.

All working out must be shown in your book.

Task 3: Complete all tasks below

Solving linear equations homework   Year_____ Set on _____/Due on_____

Key words
Equation
Term
Unknown

Interesting fact

Who was al-Khwarizmi?

Guess my number

- I think of a number, multiply it by 2 and add 5. The answer is 75.

- I think of a number, multiply it by 3 and add 1. The answer is 19.

- I think of a number, multiply it by 8 and subtract 7. The answer is 57.

Key learning: Solve these equations

Bronze

a) $2a + 5 = 15$
b) $7y - 3 = 32$
c) $5f - 3 = 17$
d) $4c - 6 = 26$

Silver

e) $7(x + 4) = 63$
f) $8(x + 4) = 88$
g) $16(x - 3) = -80$
h) $1.5(x + 2) = 12$

Gold

i) $6x - 4 = 2x + 16$
j) $17x - 2 = 7x + 8$
k) $10x - 5 = 3x + 9$
l) $15x - 8 = 4x + 47$

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Challenge
1. Ben and Ella got £44 between them for their birthdays. Ella got £8 more than Ben. How much did Ben get?

2. A square with side 3x cm has the same perimeter as a rectangle with sides 7 and 2x + 1. Use this information to find the area of the square

3. In a triangle the angles are 5x, 3x and 2x+40. Work out the value of x.

4. A rectangle has sides 4x and (x+8) cm with a perimeter of 146 cm. What is the area of this rectangle?

Task 4: Computer based homework task

Using www.corbettmaths.com watch the following videos and answer the questions set in your homework book. You must show all your working out.

Video 60 Circumference of circles – Watch the video and then answer **5 of the apply questions** from the textbook exercise.

Video 59 Area of circles – Watch the video and then answer **5 of the apply questions** from the textbook exercise.

Task 5: Computer based homework task

Video 191 y=mx+c – Watch the video and then choose from the table below which set of questions to answer.

Green	Amber	Red	Killer
Textbook exercise Q5 a-f Apply Q 1, 2 and 6	Textbook exercise Q6 a-f Apply Q 1, 2 and 6	Textbook exercise Q7 a-f Apply Q 1, 2 and 6	Textbook exercise Q8 a-f Apply Q 1, 2 and 6