

Year 9T Homework – Half Term 1

Homework 1 – Due: _____

Make sure you log on to HegartyMaths for help if you need it.
The clip number is shown with the topic.

Trial and Improvement (321)

Using trial and improvement, find the solution between 1 and 2 for the following equation.
Give your answer rounded to 1 DP.

$$x^3 + 5x^2 = 8$$

Percentage Increase/Decrease (90)

Decrease £843 by 91%
Give your answer rounded to 2 DP.

Sharing in a Ratio (332)

Paul, Colin and Brian are waiters. One night the restaurant earns tips totaling £78.40. They share the tips in the ratio 2:5:1. How much more does Colin get over Paul?

Index Notation (105)

Simplify $9^4 \times 5^2 \times 9^3 \times 5^3 \times 9^2$
leaving your answer in index form.

Homework 2 – Due: _____

Log onto HegartyMaths to watch the video and complete the quiz online. **Topic:** _____

My score was: _____

Homework 3 – Due: _____

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The clip number is shown with the topic.

Trial and Improvement (321)

Using trial and improvement, find the solution between 1 and 2 for the following equation.
Give your answer rounded to 1 DP.

$$x^3 + 2x^2 - 5x + 5 = 9$$

Index Notation (106)

Write as a single power of 9.

$$\frac{9^8 \times 9^{-5}}{9^{-6}}$$

Percentage Increase/Decrease (90)

Decrease £15890.23 by 16.5%
Give your answer rounded to 2 DP.

Volume/Surface Area of Cuboids (569)

The volume of a cuboid is 594cm^3 .
The length is 9cm and the width is 60mm.
Work out the height of the cuboid in cm.

Homework 4 – Due: _____

Log onto HegartyMaths to watch the video and complete the quiz online. **Topic:** _____

My score was: _____

Homework 5 – Due: _____

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Sharing in a Ratio (333)

Bridget, Jim and Krutika share some sweets in the ratio 2:3:3. Bridget gets 22 sweets. How many more sweets does Jim get over Bridget?

Index Notation (106)

Write as a single power of 12.

$$\frac{12^2 \times 12^9}{12^{-2}}$$

Special Sequences (263)

Consider the Fibonacci sequence below.
Which is the first term in the sequence to exceed 240? 1, 1, 2, 3, 5, 8, ...

Volume/Surface Area of Cuboids (569)

The volume of a cuboid is 66cm^3 .
The length is 11cm and the width is 20mm.
Work out the height of the cuboid in cm.

Homework 6 – Due: _____

Log onto HegartyMaths to watch the video and complete the quiz online. **Topic:** _____

My score was: _____

Extension

Have you finished? Are you finding it too easy?

Go to <https://parallel.org.uk/> and look at the puzzles for your year group on the left. Show your answers on this page.