

Year 9 Spring Term Homework Booklet

Name:

Form:

Week Homework	Due Date	Complete
1		
2		
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Half Term		

Week Homework	Due Date	Complete
1		
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Easter		

Remember to show all your calculations for each question.

Half Term One

Week 1

- 1 **Factorise** $10x + 15$
- 2 **Simplify** $x^3 \times x^3$
- 3 **Work out** 0.35×0.22
- 4 **Work out** $\frac{1}{3} + \frac{2}{5}$
- 5 Find the **nth term** 10, 14, 18, 22
- 6 **Work out** $60 \div 0.5$
- 7 **Solve** $7x - 5 = 5x + 9$
- 8 **Divide** £144 in the ratio 5 : 7
- 9 **Express** $\frac{3}{5}$ as a percentage
- 10 What is the **gradient** of the line $y = 5x + 2$?

Answer	Working Out
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Week 2

- 1 **Factorise** $24x + 18$
- 2 **Simplify** $x^3 \times x \times x^3$
- 3 **Work out** $10.25 + 124.07$
- 4 **Work out** $\frac{4}{5} - \frac{2}{3}$
- 5 Find the **nth term** 12, 18, 24, 30
- 6 **Work out** $20 \div 0.4$
- 7 **Solve** $5x - 5 = 13 - x$
- 8 **Divide** £208 in the ratio 3 : 1
- 9 **Express** $\frac{13}{25}$ as a percentage
- 10 What is the **gradient** of the line $y = 2 - 6x$?

Answer	Working Out
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Week 3

- 1 **Factorise** $10x - 5$
- 2 **Simplify** $x^3 \times y \times x^2 \times y$
- 3 **Work out** 1.5×1.4
- 4 **Work out** $\frac{4}{5} - \frac{1}{4}$
- 5 Find the **nth term** -12, -5, 2, 9
- 6 **Work out** $40 \div 0.2$
- 7 **Solve** $2x - 8 = 7 - 3x$
- 8 **Divide** £606 in the ratio 5 : 1
- 9 **Express** $\frac{3}{20}$ as a percentage
- 10 What is the **gradient** of the line $y = 7 + 4x$?

Answer	Working Out
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Week 4

- 1 **Factorise** $18 - 6x$
- 2 **Simplify** $x^3 \times y \times x^2 \times y^7$
- 3 **Work out** 0.45×0.4
- 4 **Work out** $\frac{7}{9} - \frac{2}{5}$
- 5 Find the **nth term** -3, 5, 13, 21
- 6 **Work out** $90 \div 0.3$
- 7 **Solve** $2x + 8 = 5 - x$
- 8 **Divide** £1248 in the ratio 3 : 1
- 9 **Express** $\frac{7}{20}$ as a percentage
- 10 What is the **gradient** of the line $y = \frac{1}{2}x + 2$?

Answer	Working Out
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Week 5

- 1 **Factorise** $100x - 50$
- 2 **Simplify** $x^3 \times y \times x^6 \times y^2$
- 3 **Work out** $2.025 + 19.895$
- 4 **Work out** $\frac{1}{3} + \frac{4}{7}$
- 5 Find the **nth term** 0.4, 1, 1.6, 2.2
- 6 **Work out** $12 \div 0.3$
- 7 **Solve** $x - 8 = 8 - 3x$
- 8 **Divide** £396 in the ratio 5 : 4
- 9 **Express** $\frac{13}{20}$ as a percentage
- 10 What is the **gradient** of the line $y = 2 - 7x$?

Answer	Working Out
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Week 6

- 1 **Factorise** $36x - 18$
- 2 **Simplify** $y^3 \times y \times x^6 \times y$
- 3 **Work out** $3.098 - 2.98$
- 4 **Work out** $\frac{9}{10} - \frac{3}{8}$
- 5 Find the **nth term** $-0.5, 0, 0.5, 1$
- 6 **Work out** $450 \div 0.9$
- 7 **Solve** $3(2x - 4) = 4x + 10$
- 8 **Divide** £950 in the ratio 2 : 3
- 9 **Express** $\frac{3}{25}$ as a percentage
- 10 What is the **gradient** of the line $y = 1 - \frac{1}{2}x$?

Answer	Working Out
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Week 7

- 1 **Factorise** $7x - 70$
- 2 **Simplify** $y^4 \times x \times x^2 \times y$
- 3 **Work out** 2.75×25
- 4 **Work out** $\frac{1}{8} - \frac{1}{10}$
- 5 Find the **nth term** 21, 24, 27, 30
- 6 **Work out** $300 \div 0.6$
- 7 **Solve** $5(2x - 3) = 3x - 1$
- 8 **Divide** £336 in the ratio 1 : 6
- 9 **Express** $\frac{1}{20}$ as a percentage
- 10 What is the **gradient** of the line $y = 2 - 2x$?

Answer	Working Out
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Termly Project.

Please complete over the course of the first half term.

Half Term Two

Week 1

- 1 What is 10% of £14?
- 2 **Factorise** $x^2 + 3x$
- 3 **Solve** $10 + 2(2x - 1) = 16$
- 4 Express 30 as a **product of prime factors**
- 5 Find the **median** 2, 5, 12, 2, 15, 8
- 6 **Work out** $-3 + 4 \times 2$
- 7 **Work out** $40 \div 0.05$
- 8 Make **x the subject** $y = 4x$
- 9 **Express** 0.45 as a fraction (lowest form)
- 10 The point (0, ?) lies on the line $y = 4x + 2$?

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Week 2

- 1 What is 15% of £15?
- 2 **Factorise** $4x^2 - x$
- 3 **Solve** $7 + 3(2x + 1) = 4$
- 4 Express 60 as a **product of prime factors**
- 5 Find the **median** 0.4, 0.04, 0.14, 0.41, 0.44
- 6 **Work out** $-3 - 4 \times 5$
- 7 **Work out** $5 \div 0.02$
- 8 Make **x the subject** $y = x + 4$
- 9 **Express** 4% as a fraction (lowest form)
- 10 The point (0, ?) lies on the line $y = 6x - 2$?

Answer	Working Out
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Week 3

- 1 What is 20% of £22?
- 2 **Factorise** $x + 2x^2$
- 3 **Solve** $7 - 3(x + 1) = 4$
- 4 Express 96 as a **product of prime factors**
- 5 Find the **mean** 23, 54, 27, 21, 45
- 6 **Work out** $-3 + 2 \times -5$
- 7 **Work out** $1.6 \div 0.02$
- 8 Make **x the subject** $y = x - 7$
- 9 **Express** 56% as a fraction (lowest form)
- 10 The point (0, ?) lies on the line $y = 5x - 7$?

Answer	Working Out
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Week 4

- 1 What is 15% of £36?
- 2 **Factorise** $xy - 9x^2$
- 3 **Solve** $12 - 2(x + 1) = 4$
- 4 Express 40 as a **product of prime factors**
- 5 Find the **mean** 2.2, 5.3, 1.7, 2.1, 3.7
- 6 **Work out** $3 \times -4 + 2 \times 7$
- 7 **Work out** $3.5 \div 0.05$
- 8 Make **x the subject** $y = \frac{x}{3}$
- 9 **Express** 12.5% as a fraction (lowest form)
- 10 The point (0, ?) lies on the line $y = 3x - 2$?

Answer	Working Out
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Week 5

- 1 What is 55% of £24?
- 2 **Factorise** $xy + 2y^2$
- 3 **Solve** $5 + 2(x + 5) = 5$
- 4 Express 92 as a **product of prime factors**
- 5 Find the **mean** 45, 32, 65, 47, 36
- 6 **Work out** $-3 \times -2 + 2 \times 5$
- 7 **Work out** $0.9 \div 0.03$
- 8 Make **x the subject** $y = \frac{5}{x}$
- 9 **Express** 95% as a fraction (lowest form)
- 10 The point (0, ?) lies on the line $y = 10 - 2x$?

Answer	Working Out
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Week 6

- 1 What is 35% of £8?
- 2 **Factorise** $8y^2x + 5x$
- 3 **Solve** $4 - 2(x - 1) = 8$
- 4 Express 110 as a **product of prime factors**
- 5 Find the **median** -9, 6, -2, 0, -7, 3
- 6 **Work out** $(-3)^2 \times 2$
- 7 **Work out** $14 \div 0.07$
- 8 Make **x the subject** $y = 7 - x$
- 9 **Express** 0.02 as a fraction (lowest form)
- 10 The point (0, ?) lies on the line $y = 6 - \frac{1}{2}x$?

Answer	Working Out
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Week 7

- 1 What is 45% of £24?
- 2 **Factorise** $9y^2x + 5x$
- 3 **Solve** $4 - 3(x - 2) = 13$
- 4 Express 81 as a **product of prime factors**
- 5 Find the **median** -6, -16, 4, -2, 9, 2
- 6 **Work out** $(-3)^2 \times (-1)^2$
- 7 **Work out** $24 \div 0.06$
- 8 Make **x the subject** $2y = 3 - x$
- 9 **Express** 0.375 as a fraction (lowest form)
- 10 The point (0, ?) lies on the line $y = 12 - \frac{1}{2}x$?

Answer	Working Out
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Termly Project.

To be completed the second Spring Half Term.

Create a revision booklet including six topics from this half term.

Booklet must include descriptions on how to complete work and worked examples.

It must visually be colourful and draw attention to key points needed to revise the topics chosen.

Hint: Look at revision guides for maths on the internet.