



THE
GARIBALDI
SCHOOL

8A1-A3

Maths Work Booklet w/c 13th July 2020

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Instructions

As this is your last Maths project of the academic year; each day you have ten questions to answer that cover all the topics you have learnt throughout the year!! Well done for all your hard work in Maths!!



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Monday



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Revision slide

Example

Round the following to 1 significant figure (1sf).

↓ ↓
17674

20000(1sf)

1. Find the first significant figure
2. Draw a line to the right of it.
3. Look at the next number.
If it's 5 or more we round up.
If it's less than 5 we leave same.
4. Everything else goes to zero.



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Monday Questions



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1 **Work out** $£23.49 + £7.82$

2 **Evaluate** 2^6

3 **Solve** $5x - 1 = 34$

4 **Round** 56354 correct to 1 significant figure

5 **Work out** $-7 + 9$

6 Find the **nth term** 12, 14, 16, 18

7 **Simplify** the ratio 15 : 27

8 **Work out** $5 \times £4.55$

9 Work out the **mean** 3, 12, 7, 12, 11

10 Complete the **equivalent fraction** $\frac{2}{3} = \frac{?}{15}$

Answers:

1)

2)

3)

4)

5)

6)

7)

8)

9)

10)



Tuesday



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Example 1: Expanding brackets

• Expand $2(x + 4) - 3(x - 5)$

****Think Mrs Bridge's Dodgy Eyebrows!!**

$2x + 8 - 3x + 15$ (You then need to simplify)

Collect the 'x' terms = $-x$

Collect the numbers = 23

Combine = $-x + 23$



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Tuesday Questions

Answers:

1 **Estimate** $5647 + 10874$

2 **Work out** $\frac{2}{3} \times \frac{1}{4}$

3 **Work out** $\text{£}47.60 \div 8$

4 **Expand** $5(3x - 2)$

5 **Express** 45% as a fraction in its lowest form

6 What is the **highest common factor** of 35 and 63?

7 **Work out** 7×-5

8 **Express** the ratio 4 : 14 in the form 1 : n

9 **Solve** $6x + 2 = 4x + 14$

10 Express 24 as a **product of prime factors**

1)

2)

3)

4)

5)

6)

7)

8)

9)

10)



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Wednesday



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Example 3: Factorise fully (linear expressions)

- Factorise fully $9y + 6y^2$

HCF of 9 and 6 = 3

HCF of y and $y^2 = y$

So fully factorised: $3y(3 + 2y)$



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Wednesday Questions

- 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 $y = 5x + 2$?

Answers:

- 1)
- 2)
- 3)
- 4)
- 5)
- 6)
- 7)
- 8)
- 9)
- 10)



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Thursday

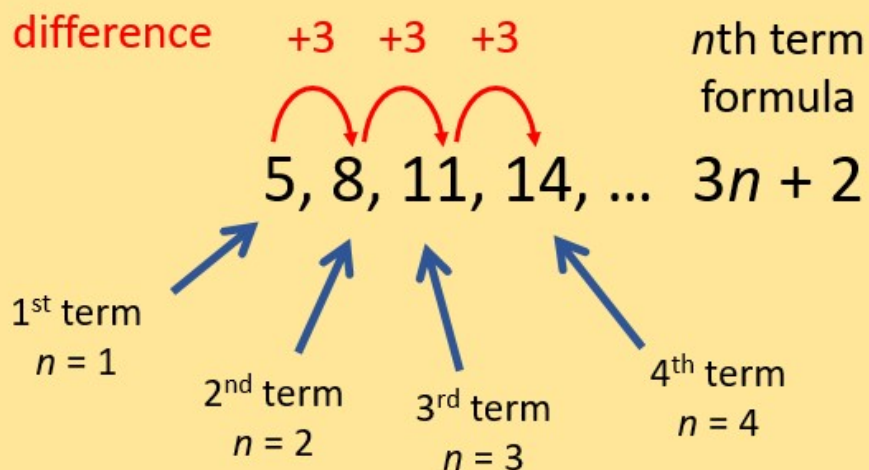


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Linear Sequences (Arithmetic Sequences)



In a linear sequence, the numbers increase/decrease by the same amount every time, just like a times table.

We want to find a formula for the *n*th term.
n = the position of the number (5th, 6th, 20th, 1000th)



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Thursday Questions

Answers:

- 1) **Work out** $£34.58 + £19.99 + 75p$
- 2) **Evaluate** 10^3
- 3) **Solve** $4(2x + 1) = 8$
- 4) **Round** 10.928 correct to 1 significant figure
- 5) **Work out** $7 - 18$
- 6) Find the **nth term** -5, -2, 1, 4
- 7) **Simplify** the ratio 45 : 120
- 8) **Work out** $8 \times £42.99$
- 9) Work out the **median** 0.4, 0.41, 0.401, 0.04, 4.1
- 10) Complete the **equivalent fraction** $\frac{4}{15} = \frac{?}{45}$

1)

2)

3)

4)

5)

6)

7)

8)

9)

10)



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Friday



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Solving Equations- Unknowns on both sides

$$\begin{array}{r} 2a + 5 = 4a - 1 \\ -2a \quad -2a \\ 5 = 2a - 1 \\ +1 \quad +1 \\ 6 = 2a \\ \bar{6} \quad \bar{6} \\ 3 = a \end{array}$$



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Friday Questions

1 **Estimate** $65473 \div 7493$

2 **Work out** $\frac{2}{3} \times \frac{6}{7}$

3 **Work out** $\text{£}154.80 \div 6$

4 **Expand** $x(6x + 5)$

5 **Express** 15% as a fraction in its lowest form

6 What is the **lowest common multiple** of 15 and 9?

7 **Work out** $-45 \div 9$

8 **Express** the ratio 27 : 2 in the form $n : 1$

9 **Solve** $10x - 7 = 5x + 8$

10 Express 80 as a **product of prime factors**

Answers:

1)

2)

3)

4)

5)

6)

7)

8)

9)

10)



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