

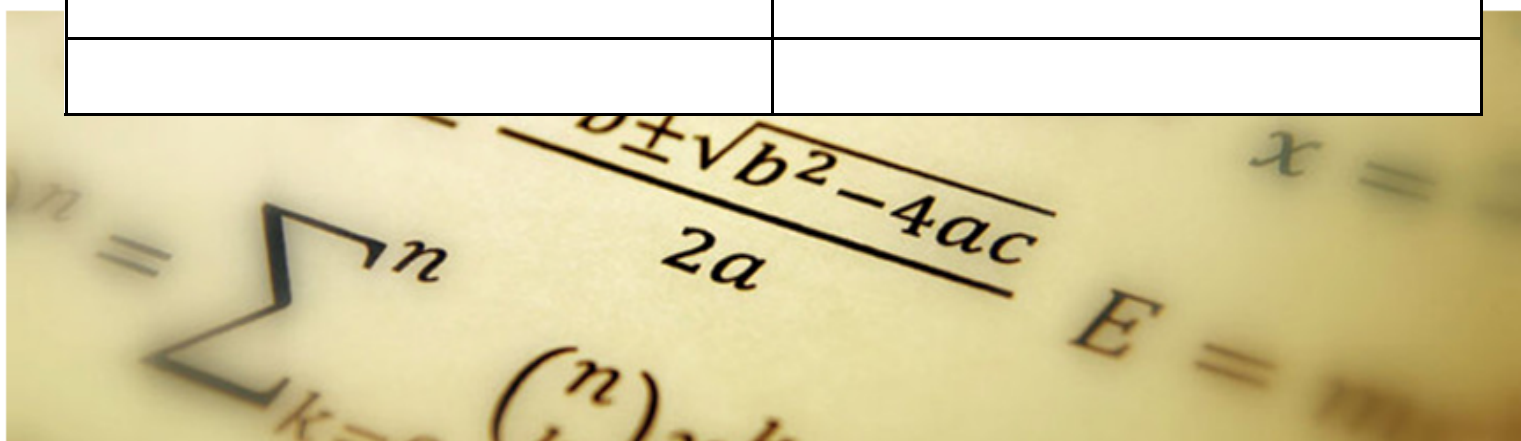


Knowledge Organiser

Maths

Year 11 Term 3 Foundation

Name:		Class:	
Homework		Due date	



Year 11 Foundation Term 3 Overview

Algebra

Coordinates	Solving linear equations
Sketching straight line graphs	Real-life graphs
Sketching quadratic and cubic graphs	Solve simultaneous equations graphically

Geometry, shape and Measure

Types of 2D/3D shapes and properties	Types of lines and angles	Measuring lines and angles	Plans and elevations	Read scales	Symmetry and rotational symmetry
Angles on line/triangle/point/quadrilateral	Angles in polygons	Angles in parallel lines	Constructing triangles	Bearings	Transformations

Formal MOCKS, MIXED revision and feedback

14th Jan to 8th February

Useful Websites—Resources, Past Papers, Video Tutorials and Solutions

- ♦ <https://corbettmaths.com/contents/>
- ♦ <https://vle.mathswatch.co.uk/vle/>
USERNAME: firstnamesurname@dustonschool
PASSWORD: berrywood
- ♦ <https://www.methodmaths.com/>
CENTRE ID: duston
USERNAME: firstnamesurname PASSWORD: firstnamesurname

Term 3 Homework 1 Foundation

Use the websites suggested on the overview page to help complete these questions.

Your teacher will let you know when this homework is due. You will go over how to complete these together in class and then you have a go at the next homework which has similar questions.

This will increase your success in these topics in the Summer.

- 1) Round 0.012784
correct to 2
significant figures

- 5) Mathswatch clip 135a

Solve the equation: $4(2x - 2) = 56$

- 2) Mathswatch clip 106

45 apples are distributed between Adam
and Beth in the ratio 2 : 3.
Write the amount each gets in a ratio.

- 6) Mathswatch clip 159a

Find the gradient and y-axis intercept
of the graph

$$y = 3x - 1$$

- 3) Mathswatch clip 741a 71b

$$\frac{3}{4} + \frac{1}{5}$$

- 7) Mathswatch clip 61

Humanities and Sciences studied by students where each
must chose 1 science and 1 humanities option

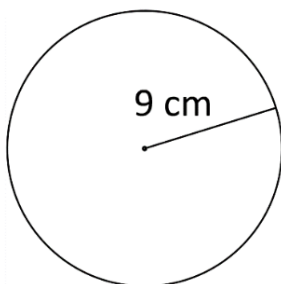
	Biology	Chemistry	Physics	TOTAL
History	7	17	14	
Geography	2		3	
Ethics		4	3	8
	10	40		70

- 4) 0.6×0.8

How many students studied both Chemistry
and History?

8) Matchwatch clip 117

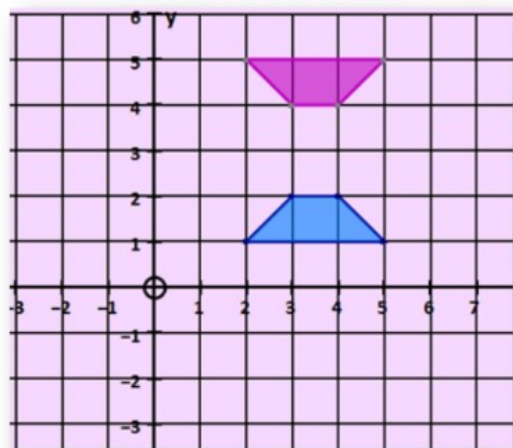
Calculate the area of the circle



Answers correct to 2 decimal places

9) Describe the transformation below

Mathwatch clip 48



10) Mathswatch clip 91

Estimate the answer

$$\begin{array}{r} 48 + 54 \\ \hline 13 \end{array}$$

11) Matchwatch clip 130a Calculate the mean

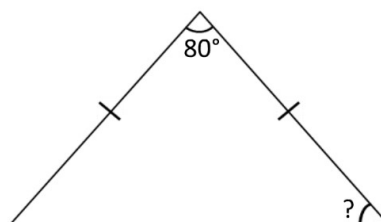
x	frequency
11	2
12	0
13	3
14	3
15	2

12) Factorise fully (Mathswatch clip 94)

$$14y - 21y^3$$

Matchwatch clip 121

13) Calculate the missing angle



14) Work out the angle needed for each type of drink to be able to draw a pie chart
Matchwatch clip 128a

Favourite colour	Frequency
Red	32
Blue	14
Green	18
Yellow	5
Pink	21

Term 3 Homework 2 Foundation

Use the websites suggested on the overview page to help complete these questions.

Your teacher will let you know when this homework is due. You will go over how to complete these together in class and then you have a go at the next homework which has similar questions.

This will increase your success in these topics in the Summer.

- 1) Round 12.453
correct to 2
significant figures

- 5) Mathswatch clip 135a

Solve the equation:

$$4(3x - 2) = 64$$

- 2) Mathswatch clip 106

32 apples are distributed between Adam
and Beth in the ratio 5 : 3.
Write the amount each gets in a ratio.

- 6) Mathswatch clip 159a

Find the gradient and y-axis intercept
of the graph

$$y = 4x - 2$$

- 3) Mathswatch clip 741a 71b

$$\frac{1}{4} + \frac{2}{5}$$

- 7) Mathswatch clip 61

Subjects studied by students

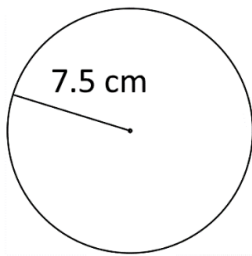
	French	German	Spanish	TOTAL
Male	7	17	8	
Female	2		3	8
TOTAL		20	11	40

- 4) 1.3×0.4

How many students studied French?

8) Matchwatch clip 117

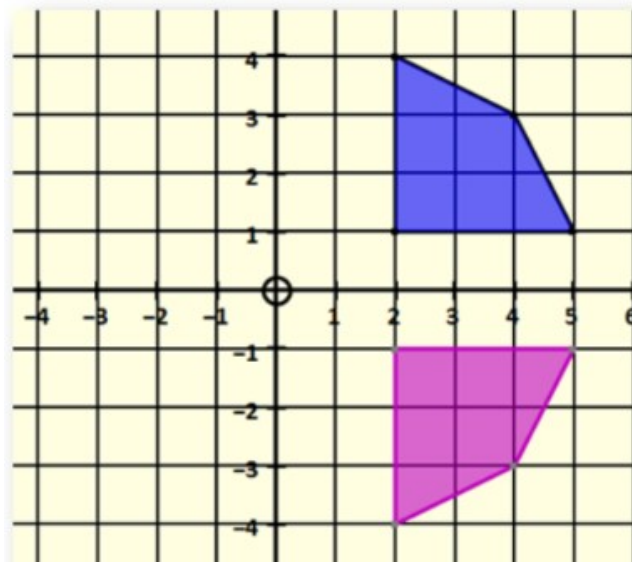
Calculate the area of the circle



Answers correct to 2 decimal places

9) Describe the transformation below

Mathwatch clip 48



10) Mathswatch clip 91

Estimate the answer

$$\begin{array}{r} 487 \\ 12 + 13 \end{array}$$

11) Matchwatch clip 130a Calculate the mean

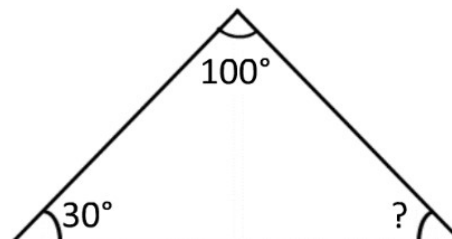
x	frequency
15	4
16	15
17	2
18	0
19	4

12) Factorise fully (Mathswatch clip 94)

$$21x^2 + 14x^3$$

Matchwatch clip 121

13) Calculate the missing angle



14) Work out the angle needed for each type of drink to be able to draw a pie chart
Matchwatch clip 128a

Favourite Holiday Destination	Frequency
UK	13
France	3
Spain	4
USA	2
Other	8

Term 3 Homework 3 Foundation

Use the websites suggested on the overview page to help complete these questions.

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- 1) Round 1.02856
correct to 4
significant figure

- 5) Mathswatch clip 135a

Solve the equation:

$$2(2x - 5) = 50$$

- 2) Mathswatch clip 106

28 apples are distributed between Adam
and Beth in the ratio 2 : 5.
Write the amount each gets in a ratio.

- 6) Mathswatch clip 159a

Find the gradient and y-axis intercept
of the graph

$$y = 5x - 3$$

- 3) Mathswatch clip 741a 71b

$$\frac{3}{8} + \frac{1}{2}$$

- 7) Mathswatch clip 61

Favourite sport

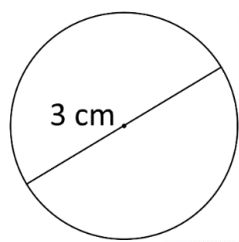
	Football	Cricket	Tennis	TOTAL
Male	4		18	40
Female	10	26		
TOTAL		44	22	80

- 4) 4.5×0.3

How many females chose Cricket?

8) Matchwatch clip 117

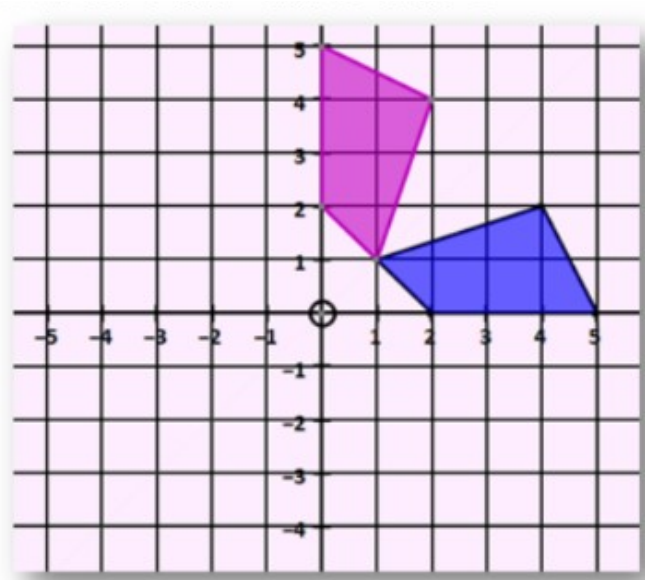
Calculate the area of the circle



Answers correct to 2 decimal places

9) Describe the transformation below

Mathwatch clip 48



10) Mathswatch clip 91

Estimate the answer

$$\begin{array}{r} 734 \\ \hline 23 + 52 \end{array}$$

11) Matchwatch clip 130a Calculate the mean

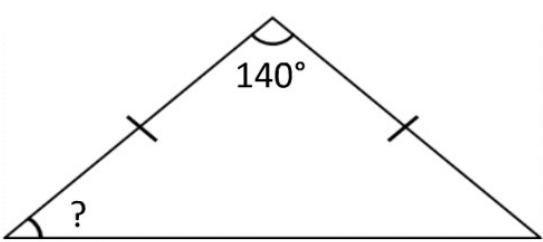
x	frequency
15	4
16	10
17	16
18	12
19	8

12) Factorise fully (Mathswatch clip 94)

$$3x + 15x^3$$

Matchwatch clip 121

13) Calculate the missing angle



14) Work out the angle needed for each type of drink to be able to draw a pie chart
Matchwatch clip 128a

Favourite Type of TV programme	Frequency
Film	11
Soap Opera	14
Music	4
News	7
Documentary	9