

Getting Started with Dr Frost

A guide for students

www.drfrostmaths.com
[@DrFrostMaths](https://twitter.com/DrFrostMaths)



Last modified: September 2023

Dr Frost Learning is a registered charity
in England and Wales (no 1194954)

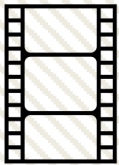
What is DrFrost?



An online classwork and homework platform



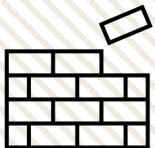
Designed to help you master mathematical Key Skills



Access video help at any time during a task




Earn points and trophies for achievements on Dr Frost




Practice topics independently to increase your mastery with each skill

The home dashboard

 **Joe**
Ravenpuff School

 Trophies
8/37

 Points This Year
1034

Mastery
14 9 1

You can see how many skills you have mastered at each level and your total points for the year.

What to work on next?

[Start a Practice](#)

- 80 Collect like terms.
- 83 Expand a single bracket.

[Review Progress](#)

YOUR COURSES

- Year 8
- Year 7 revision Assessment 1

[+Add Course](#)

My Homework

- ✓ Expanding Brackets worksheet
Due 6 days ago **75%**
- ✓ Flexible practice on factorising **80%**
- ✗ Expand and simplify Y8

[Review All](#)

Notifications

- ✓ You completed an independent practice and achieved 100%
LAST WEEK
122 Round a number to a given number of significant figures.
- ✓ You completed an independent practice and achieved 40%
LAST WEEK
106 Find a quantity within a ratio where either the total amount, a particular amount or a difference in an amount is given.
K105c Determine the fraction that a number within a ratio represents.
- ✓ You completed an independent practice and achieved 67%
LAST WEEK
105 Simplify ratios and form ratios from context.
- ✓ You completed your homework for Ms M McDonagh and achieved 80%
LAST WEEK
Flexible practice on factorising

You earn trophies for different achievements. For example, earning a certain number of points, or completing a certain number of questions correctly in a row.

Completing an assigned task

Menu

dfm



Joe 42



Joe
Ravenpuff School

Trophies
8/37

Points This Year
1034

Mastery
14 9 1

What to work on next?

Start a Practice

80 Collect like terms.

83 Expand a single bracket.

Review Progress

YOUR COURSES

Year 8
Year 7 revision Assessment 1

+Add Course

My Homework

✓ Expanding Brackets worksheet
Due 6 days ago

75%

✓ Flexible practice on factorising

80%

✗ Expand and simplify Y8

Review All

Notifications

✓ You completed an
practice and achieved
LAST WEEK

122 Round a number
figures.

✓ You completed an independent
practice and achieved
LAST WEEK

100%

106 Find a quantity within a ratio where either the total
amount, a particular amount or a difference in an amount
is given.

✓ You completed an independent
practice and achieved
LAST WEEK

40%

K105c Determine the fraction that a number within a
ratio represents.

✓ You completed an independent
practice and achieved
LAST WEEK

67%

105 Simplify ratios and form ratios from context.

✓ You completed your homework for
Ms M McDonagh and achieved
LAST WEEK

80%

Flexible practice on factorising

The red notification will tell you if you have homework and/or if you have feedback from your teacher.

Your most recent homework tasks appear on the dashboard. Click on the X to start.

Click 'Review all' to see every homework set to you this year.

Completing an assigned task

:: Menu

dfm



To begin your homework press 'Start Attempt'.

Assigned Work

My Progress

Leaderboards

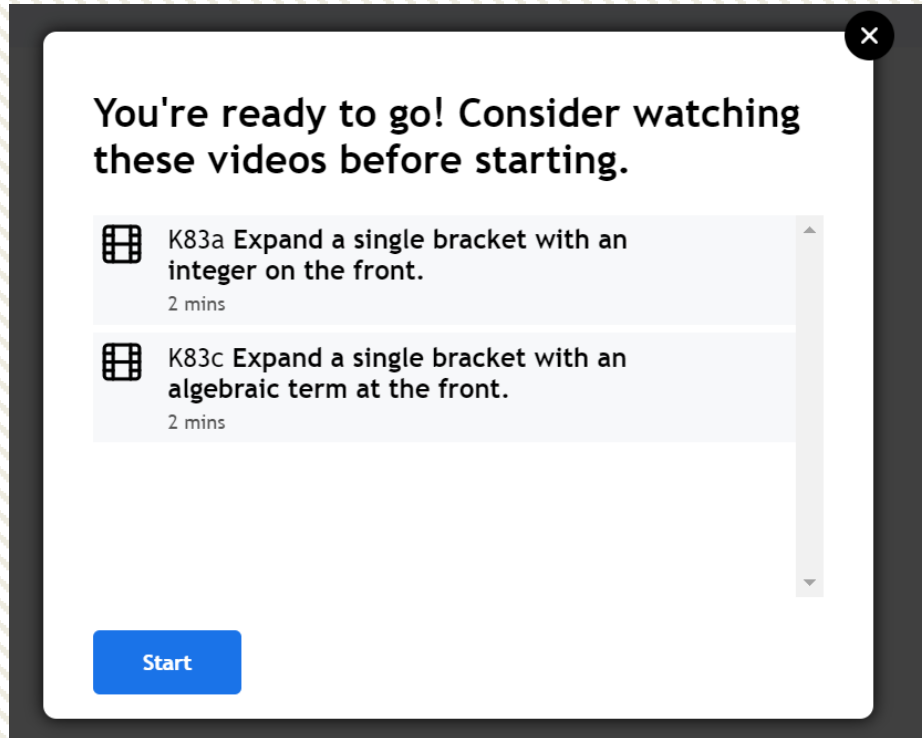
← Expand homework example

Attempt 1/1 ▾

Start Attempt



Use the **Start Attempt** button above to start this task.

Completing an assigned task



A screenshot of a digital interface for completing a task. At the top, it says "You're ready to go! Consider watching these videos before starting." Below this, there is a scrollable list of two video recommendations, each with a video icon, a title, and a duration of "2 mins". At the bottom left, there is a blue "Start" button. A close button (an 'x' in a circle) is in the top right corner of the interface.

You're ready to go! Consider watching these videos before starting.

-  K83a Expand a single bracket with an integer on the front.
2 mins
-  K83c Expand a single bracket with an algebraic term at the front.
2 mins

Start

You will get an option to watch videos relating to the skills in the task, you can watch these, or press 'Start' to skip this step.

Your teacher may require you to watch a video first, in which case, the 'Start' button will be greyed out until you've watched the full video.

Completing an assigned task



Q1

Q2

Q3

Q4

COMPLETION
0%

Watch the help video if you're stuck.

Expand

$$8(x - 5)$$

Submit Answer

Type your answer in the box and use the keypad for mathematical symbols and functions.

x	y	e	π	7	8	9	\square/\square		Main
$\sqrt{\square}$	$\sqrt[n]{\square}$	a^2	a^{\square}	4	5	6	\times	\leftarrow	ABC
$<$	$>$	\leq	\geq	1	2	3	$-$	\rightarrow	Funcs
()	!	θ	0	.	=	+	\leftarrow	Syms

Completing an assigned task

dfm

Secondary → Algebra → Expanding Brackets

K83a: Expand a single bracket with an integer on the front.

Watch Worked Example



Q1 Q2 Q3 Q4

COMPLETION
0%

Expand

$$8(x - 5)$$

Submit Answer

Click the pen icon to show working on the side whiteboard.

Handwritten working on a whiteboard. The first line shows the expression $8(x-5)$ with a curved line above it indicating the distribution of the 8. The second line shows the result $8x - 40$.

Completing an assigned task

dfm

Calculator Permitted
Author: Edexcel
Difficulty: 1 2 3 4

Get Video Help on this Topic

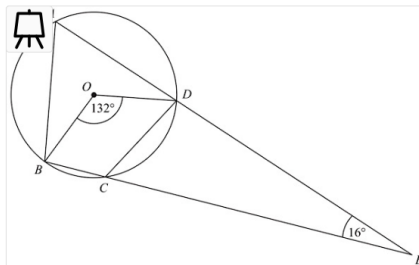


Q1 Q2 Q3 Q4 Q5 Q6

COMPLETION
0%

If the question has a diagram, use your cursor to hover over the image. If you click the easel icon the diagram will appear on the side whiteboard for you to annotate.

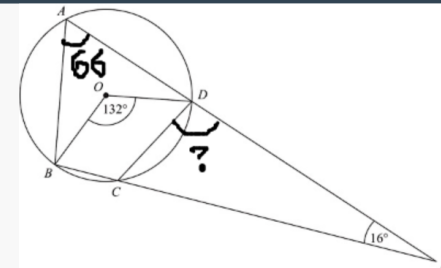
A , B , C and D are points on the circumference of a circle, centre O .
 ADE and BCE are straight lines.



Work out the size of angle CDE .

(4 marks)

Submit Answer



Completing an assigned task

dfm

Your mastery for this skill has increased.

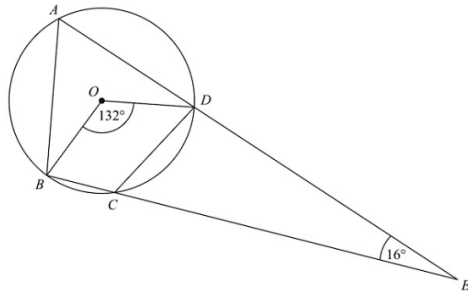
306 Understand and apply all circle theorems.



Get Video Help on this Topic

Every question you answer impacts your mastery for that skill. It may go up, down or stay the same.

A, B, C and D are points on the circumference of a circle, centre O .
 ADE and BCE are straight lines.



Work out the size of angle CDE .

(4 marks)

°

Submit Answer

It took me a long time to realise there was a cyclic quadrilateral.

Send

Write feedback to your teacher here.

COMPLETION
0%

✓ Correct

The answer is 98 °

98	M1	for $BAD = 132 \div 2 (= 66)$	
	M1	eg $BCD = 180 - "66" (= 114)$ or $ABE = 180 - "66" - 16 (= 98)$	M2 for reflex A (= 228) and $BCD = "2$
	A1	for finding $CDE = 98$	
	C1	(dep on at least M2) for one circle theorem relevant eg The angle at the centre of a circle is twice the angle at the circumference or Opposite angles of a cyclic quadrilateral add up	

Next Question

Continue Later

If the question you've answered is an exam question, you will be shown the mark scheme.

Completing an assigned task

dfm

Your mastery for this skill has increased.

179 Expand two brackets.



Watch Worked Example

Q1 Q2 Q3 Q4 Q5 Q6 Q7

COMPLETION
86%

Expand and simplify

$$(2x - 1)(3x - 4) - (2x - 3)(x + 2)$$

Submit Answer

You can optionally leave a comment for your teacher about this question/your answer. Press Alt+Equals to insert mathematical expressions.

Send

If the question is a Key Skill question, you will be shown the full written method in the solution.

✓ Correct

The answer is $4x^2 - 12x + 10$

① Expand $(2x - 1)(3x - 4)$

$$\begin{aligned} &(2x - 1)(3x - 4) \\ &= 2x \times 3x - 2x \times 4 - 1 \times 3x + 1 \times 4 \\ &= 6x^2 - 11x + 4 \end{aligned}$$

② Expand $(2x - 3)(x + 2)$

$$\begin{aligned} &(2x - 3)(x + 2) \\ &= 2x \times x + 2x \times 2 - 3 \times x - 3 \times 2 \\ &= 2x^2 + x - 6 \end{aligned}$$

③ Simplify.

$$\begin{aligned} &(2x - 1)(3x - 4) - (2x - 3)(x + 2) \\ &= (6x^2 - 11x + 4) - (2x^2 + x - 6) \\ &= 4x^2 - 12x + 10 \end{aligned}$$

Next Question

Continue Later

Completing an assigned task

Q1

Q2

Q3

Q4

Q5

Q6

Q7

Q8

Q9

Q10


Q11

Q12

COMPLETION
8%

Expand and simplify:

$$(2 - \sqrt{3})(\sqrt{3} - 2)$$



Submit Answer

You can optionally leave a comment for your teacher about this question/your answer. Press Alt+Equals to insert mathematical expressions.

Send

If your teacher only allows you **one attempt** at the task, you'll be shown the solution for incorrect answers.

✗ Incorrect

The answer is $4\sqrt{3} - 7$

① Expand the double brackets.

$$\begin{aligned} & (2 - \sqrt{3})(\sqrt{3} - 2) \\ &= 2\sqrt{3} - 2 \times 2 - \sqrt{3}\sqrt{3} + 2\sqrt{3} \\ &= 2\sqrt{3} - 4 - 3 + 2\sqrt{3} \end{aligned}$$

② Simplify.

$$= 4\sqrt{3} - 7$$

Next Question

Continue Later

Top tip: Read the solution, write down the steps and use it to help you with future questions.

Completing an assigned task

Q1

Q2

Q3

Q4

Q5

Q6

Q7

Q8

Q9

Q10

Q11

Q12

COMPLETION
0%

Write $4\sqrt{5}$ in the form \sqrt{a} where a is an integer to be found.

Submit Answer

You can optionally leave a comment for your teacher about this question/your answer. Press Alt+Equals to insert mathematical expressions.

Send

✗ Incorrect

As your teacher has allowed reattempts on this task, we have hidden the correct answer.

Next Question

Continue Later

If your teacher allows you to reattempt the task and if the task is a fixed set of questions (ie. Everyone in the class has the same set of questions) then you won't be shown the solution.

This means you can reattempt the questions you got wrong and try for a better mark.

Completing an assigned task



Q1 Q2 Q3 Q4 Q5 Q6

COMPLETION
83%

Round 0.02909 to 1 significant figure.

Correct Answer:
0.03
Your Answer:
0.03

✓ Correct

The answer is 0.03

① Identify the first significant figure by counting from the first non-zero digit.

0.02909

② The next digit is 5 or more so we round the significant figures up.

0.02909

↓

0.03

③ The rounded value is 0.03

Next Question

Continue Later

You can press 'Continue Later' and come back to the task.

If the homework has a **time limit** then you will need to complete the task in one sitting, as the timer will continue to count down even if you close the task.

Completing as assigned task



Joe
Ravenpuff School

Trophies
8/37

Points This Year
1088

Mastery
14 9 1

What to work on next?

Start a Practice

- 123 Estimate the result of a calculation by first rounding each number.
- 314 Multiply and divide surds.

Review Progress

YOUR COURSES

Year 8
Year 7 revision Assessment 1

+Add Course

My Homework

- ✓ Round to significant figures 67%
- ✗ surds retrieval week 2
- ✗ Surds retrieval week 1

Review All

Notifications

- ✓ You completed your homework for Ms M McDonagh and achieved 67%
56 MINUTES AGO
Round to significant figures
- ✗ You have been set a task by your teacher Ms M McDonagh. Click to start it.
1 HOUR AGO
Round to significant figures
- ✓ You completed your homework for Ms M McDonagh and achieved 86%
1 HOUR AGO
Expanding Brackets worksheet
- ✗ You have been set a task by your teacher Ms M McDonagh. Click to start it.
1 HOUR AGO
surds retrieval week 2
- ✗ You have been set a task by your teacher Ms M McDonagh. Click to start it.
1 HOUR AGO
Surds retrieval week 1
- ✓ You completed your homework for Ms M McDonagh and achieved 86%

If you press 'Continue Later' simply go to the home dashboard and click on the homework again.

Completing an assigned task

Assigned Work

My Progress

Leaderboards

← Round to significant figures

Attempt 1/1

Continue Attempt

Question 1

3 secs



K122b Round a whole number to a given number of significant figures. [Review](#)

CORRECT ANSWER:
[See full markscheme](#)

90

STUDENT ANSWER:
[Report Error](#)

90

Round 93.55 to 1 significant figure.

[Write a new comment](#)

Press 'Continue Attempt'.

Question 2

3 secs



K122a Round a decimal number to a given number of significant figures. [Review](#)

CORRECT ANSWER:
[See full markscheme](#)

7

STUDENT ANSWER:
[Report Error](#)

7

Round 7.18 to 1 significant figure.

[Write a new comment](#)

Question 3

13 secs



K123a Estimate the answer of a simple calculation. [Review](#)

STUDENT ANSWER:
[Report Error](#)

By rounding each number to 1 significant figure, estimate the answer to

$$288435 + 9946$$

Completing an assigned task

The screenshot shows a math task interface. At the top left, it says 'dfm' and 'Calculator Permitted'. Below that, it lists 'Author: CCEA' and 'Difficulty: 1 2 3 4'. A button for 'Get Video Help on this Topic' is visible. The task itself asks to find the values of a and b given the equation $(x+1)(x-1) = (x+a)^2$. The user has entered $a = 1$ and $b = 2$. A blue pop-up window is overlaid on the task, displaying the following information:

- You achieved 13/19**
- Points**: You earned 57 practice points.
- Mastery Progression**:
 - 80 Collect like terms.
 - 83 Expand a single bracket.
 - 179 Expand two brackets.
- Recommendations**:
 - [179 Expand two brackets.](#)
 - [291 Equate coefficients in an identity. \$f\(x\) \equiv g\(x\)\$.](#)

At the bottom of the pop-up are two buttons: 'Exit' and 'Review Answers'. An arrow points from the 'Review Answers' button to the text box below.

At the end of the task you will have earned practice points and your mastery progression with the skills in the task will be recorded. You can press 'Review Answers' to write feedback comments and to reattempt the task for a better mark.

Reviewing a task

 **Joe**
Ravenpuff School

Trophies
8/37

Points This Year
1127

Mastery
14 10 1

What to work on next?

[Start a Practice](#)

- 123 Estimate the result of a calculation by first rounding each number.
- 179 Expand two brackets.

[Review Progress](#)

YOUR COURSES

- Year 8
- Year 7 revision Assessment 1

[+Add Course](#)

My Homework

- ✓ Round to significant figures 67%
- ✗ surds retrieval week 2
- ✓ Surds retrieval week 1 75%

[Review All](#)

Notifications

- ✓ You completed your homework for Ms M McDonagh and achieved 75%
16 MINUTES AGO
Surds retrieval week 1
- ✓ You completed your homework for Ms M McDonagh and achieved 67%
1 HOUR AGO
Round to significant figures
- ✗ You have been set a task by your teacher Ms M McDonagh. Click to start it.
1 HOUR AGO
Round to significant figures
- ✓ You completed your homework for Ms M McDonagh and achieved 86%
1 HOUR AGO
Expanding Brackets worksheet
- ✗ You have been set a task by your teacher Ms M McDonagh. Click to start it.
1 HOUR AGO
surds retrieval week 2
- ✗ You have been set a task by your teacher Ms M McDonagh. Click to start it.

Click on a completed task with a tick icon to review your answers or click 'Review All'.

Reviewing a task

dfm

Joe 42

Assigned Work

My Progress

Leaderboards

Assigned Tasks

20/8/2023 to 13/9/2023

TASK	SET DATE	DUE DATE	COMPLETED	ACCURACY
Round to significant figures Homework	Sept 6th	None	✓	67%
surds retrieval week 2 Homework	Sept 6th	None	✗	0%
Surds retrieval week 1 Homework	Sept 6th	None	✓	75%
Expand homework example Homework	Sept 5th	None	✓	86%
Expanding Brackets worksheet Homework	Aug 29th	Aug 30th 9:30am	✓	75%
Flexible practice on factorising Key Skill Homework	Aug 29th	None	✓	80%
Expand and simplify Y8 Homework	Aug 29th	None	✗	40%

Click on a task to review your answers

Top Tip: If you have missed the deadline for a homework, you should click 'Review All' so that you can older tasks that no longer appear on the dashboard. You can click on the task to start the homework.

Reviewing a task

dmf Joe 42

Assigned Work
My Progress
Leaderboards

← Round to significant figures Attempt 1/1 [Re-attempt Task](#)


Question 2 ✓
3 secs
K122a Round a decimal number to a given number of significant figures. [Review](#)
CORRECT ANSWER:
[See full markscheme](#)
7
STUDENT ANSWER:
[Report Error](#)
7

Round 7.18 to 1 significant figure.

[Write a new comment](#)

Question 3 ✗
13 secs
K123a Estimate the answer of a simple calculation. [Review](#)
STUDENT ANSWER:
[Report Error](#)
31000

By rounding each number to 1 significant figure, estimate the answer to
 $288435 + 9946$

 **Joe Bloggs** I lost track of the number of digits when I added them together.

[Submit](#)

Question 4 ✓
7 secs
K122b Round a whole number to a given number of significant figures. [Review](#)
CORRECT ANSWER:
[See full markscheme](#)
30000

Round 27336 to 1 significant figure.

[Write a new comment](#)

Click to re-attempt the task if this option is available.

Write a feedback comment to your teacher.

Reviewing a task

- Assigned Work
- My Progress
- Leaderboards

← Round to significant figures Attempt 1/1 Re-attempt Task

Question 2 ✓
3 secs

K122a Round a decimal number to a given number of significant figures. [Review](#)

CORRECT ANSWER:
[See full markscheme](#)

7

STUDENT ANSWER:
[Report Error](#)

7

Round 7.18 to 1 significant figure.

[Write a new comment](#)

Click 'Review' to try more questions on the same Key Skill. You will be taken to the Skill Explorer where you can choose this skill to practise. E.g the code for this Key Skill is K123a.

Question 3 ✗
13 secs

K123a Estimate the answer to a simple calculation. [Review](#)

STUDENT ANSWER:
[Report Error](#)

31000

By rounding each number to 1 significant figure, estimate the answer to

$$288435 + 9946$$

Joe Bloggs

I lost track of the number of digits when I added them together.

Submit

Question 4 ✓
7 secs

K122b Round a whole number to a given number of significant figures. [Review](#)

CORRECT ANSWER:
[See full markscheme](#)

30000

Round 27336 to 1 significant figure.

[Write a new comment](#)

Reviewing a task

dfm Menu Joe 42

UK Curriculum By Course

- ▼ A Level
- ▼ Primary
- ▼ Secondary
- ▼ Algebra 92 skills
- ▼ Data Handling & Probability
- ▼ Number 91 skills
 - Bases
 - Basic Arithmetic
 - Calculator Use
 - Combinations & Permutations
 - Decimals
 - Factors, Multiples and Primes
 - Fractions
 - Fractions, Decimal & Percentage Equivalences
 - Negative Numbers

123 Estimate the result of a calculation by first rounding each number.
Mastery: 0/100

OR NARROW DOWN	VIDEO	DIFFICULTY	RECENT ACCURACY
<input type="checkbox"/> E123: Exam Practice: Estimate the result of a calculation by first rounding each number. Example	📺	1-4	
<input checked="" type="checkbox"/> K123a: Estimate the answer of a simple calculation. Example	📺	1	
<input type="checkbox"/> K123b: Estimate the result of a division. Example	📺	2	

an error interval.
Mastery: 17/100

OR NARROW DOWN	VIDEO	DIFFICULTY	RECENT ACCURACY
<input type="checkbox"/> E216: Exam Practice: Calculate the upper and lower bound of rounded values or identify an error interval. Example	📺	1-4	
<input type="checkbox"/> K216a: Calculate bounds of a number rounded to the nearest 1, 10, 100, 1000. Example	📺	1	
<input type="checkbox"/> K216b: Calculate bounds of a number rounded to a given number of decimal places. Example	📺	2	
<input type="checkbox"/> K216c: Calculate bounds of a number rounded to a given number of significant figures. Example	📺	3	
<input type="checkbox"/> K216d: Calculate bounds of a number truncated to a given number of decimal places. Example	📺	4	
<input type="checkbox"/> K216e: Find the error interval of a rounded number. Example	📺	4	

Your selection
:: K123a Estimate the answer of a simple calculation. ×

[Practise](#)
[Live! Game](#)

Select the code for the Key Skill you want to practise, e.g. K123a.

Press 'Practise'.

Reviewing the task

Example

Start Practice

Skills: K123a Estimate t... | v

Fixed number of questions
Either the system differentiates between the subskills in your selection (giving you harder or easier questions based on your changing mastery), or interleaving between all the skills in your selection.

questions with

Accuracy required to finish
We'll interleave between the subskills within your selection. You need to achieve the required accuracy at each subskill.

Keep going until I say

Start

Choose whether to do a certain number of questions or whether to get aim for a level of accuracy and then press 'Start'.

Reviewing a task



Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10

COMPLETION
0%

By rounding each number to 1 significant figure, estimate the answer to

$$46162 \times 2007$$



Submit Answer

You will now be given a new set of questions on the Key Skill you struggled with on the homework. Remember, you will still have access to video help and you can improve your mastery on the skill by attempting more questions!

Responding to feedback

The screenshot shows a student dashboard for 'Joe' at 'Ravenpuff School'. The top navigation bar includes a menu icon, the 'dfm' logo, a search bar, and the user's name 'Joe' with a red notification badge showing '42'. The dashboard is divided into several sections:

- Profile and Stats:** A profile card for 'Joe Ravenpuff School' with a colorful logo. To the right, statistics are shown: 'Trophies 8/37', 'Points This Year 1127', and 'Mastery' levels (14, 10, 1).
- What to work on next?:** A section with a 'Start a Practice' button and a list of tasks: '123 Estimate the result of a calculation by first rounding each number.' and '179 Expand two brackets.'. A 'Review Progress' link is at the bottom.
- My Homework:** A list of homework items with completion percentages: 'Round to significant figures' (67%), 'surds retrieval week 2' (marked with an 'x'), and 'Surds retrieval week 1' (75%). A 'Review All' link is at the bottom.
- Notifications:** A list of recent notifications. A callout box highlights a notification: 'You received some feedback from a student regarding their work.' with a red notification icon. An arrow points from this callout to the corresponding notification in the list.
- Right Sidebar:** Contains links for 'My Dashboard', 'Log Off', and 'Account Settings'.

The red notifications next to your name will tell you if your teacher has left you feedback on a task. Click the notification to read and respond to the comment.

Responding to feedback

dfm Joe 42

Assigned Work
My Progress
Leaderboards

← Round to significant figures Attempt 1/1 Re-attempt Task

Question 3 ✗
13 secs
K123a Estimate the answer of a simple calculation. [Review](#)
STUDENT ANSWER: [Report Error](#)
31000

By rounding each number to 1 significant figure, estimate the answer to
 $288435 + 9946$

Ms McDonagh Sept 6th 12:32pm Your place value was miscounted. I suggest writing the calculation as a column addition so you preserve the place value of each digit. ✕

[Write a new comment](#)

Question 4 ✓
7 secs
K122b Round a whole number to a given number of significant figures. [Review](#)
CORRECT ANSWER: [See full markscheme](#)
30000
STUDENT ANSWER: [Report Error](#)
30000

Round 27336 to 1 significant figure.

[Write a new comment](#)

You can press 'Write a new comment' to respond.

Independent practice



Joe
Ravenpuff School

Trophies
8/37

Points This Year
1127

Mastery
14 10 1

What to work on next?

Start a Practice

123 Estimate the result of a calculation by first rounding each number.

179 Expand two brackets.

Review Progress

YOUR COURSES

Year 8
Year 8 revision Assessment 1

+Add Course

Notifications

You received some feedback from a student regarding their work.

1 HOUR AGO

Round to significant figures

You completed your homework for Ms M McDonagh and achieved

75%

1 HOUR AGO

Surds retrieval week 1

You completed your homework for

67%

Press 'Start a Practice' to find a skill to practice.

Or click on a recommended skill based on your recent activity.

Independent practice

The screenshot shows the Dr Frost Learning interface. At the top, there is a search bar containing the text 'k123a'. Below the search bar, a 'Skills (2)' panel is open, displaying a list of skills. The first skill is 'Rounding & Estimation' under the category 'Secondary → Number'. It lists three items: '123 - Estimate the result of a calculation by first rounding each number.', 'E123 - Exam Practice: Estimate the result of a calculation by first rounding each number.', and 'K123a - Estimate the answer of a simple calculation.'. Each item has an 'Explore' button. A black arrow points from a callout box to the search bar. The main interface also shows a dashboard with 'Trophies 8/37', 'Points This Year 1127', and 'Mastery' levels (14, 10, 1). There are also 'Notifications' and 'YOUR COURSES' sections.

You can also type the name of the skill or the code into the search bar. This is often the easiest way to find practice questions - especially if your teacher has shared the codes with you!

Independent Practice

UK Curriculum By Course

- ▼ A Level
- ▼ Primary
- ▼ Secondary
- ▼ Algebra 92 skills
- ▼ Data Handling & Probability
- ▼ Number 91 skills
 - Bases
 - Basic Arithmetic
 - Calculator Use
 - Combinations & Permutations
 - Decimals
 - Factors, Multiples and Primes
 - Fractions
 - Fractions, Decimal & Percentage Equivalences
 - Negative Numbers

<input type="checkbox"/>	123 Estimate the result of a calculation by first rounding each number. Mastery: 0/100			
OR NARROW DOWN				
<input type="checkbox"/>	E123: Exam Practice: Estimate the result of a calculation by first rounding each number.	Example	📺	1-4
<input checked="" type="checkbox"/>	K123a: Estimate the answer of a simple calculation.	Example	📺	1
<input type="checkbox"/>	K123b: Estimate the result of a division.	Example	📺	2

Select the code for the Key Skill you want to practise, e.g. K123a.

	an error interval. Mastery: 17/100			
OR NARROW DOWN				
<input type="checkbox"/>	E216: Exam Practice: Calculate the upper and lower bound of rounded values or identify an error interval.	Example	📺	1-4
<input type="checkbox"/>	K216a: Calculate bounds of a number rounded to the nearest 1, 10, 100, 1000.	Example	📺	1
<input type="checkbox"/>	K216b: Calculate bounds of a number rounded to a given number of decimal places.	Example	📺	2
<input type="checkbox"/>	K216c: Calculate bounds of a number rounded to a given number of significant figures.	Example	📺	3
<input type="checkbox"/>	K216d: Calculate bounds of a number truncated to a given number of decimal places.	Example	📺	4
<input type="checkbox"/>	K216e: Find the error interval of a rounded number.	Example	📺	4

Your selection

:: K123a Estimate the answer of a simple calculation. ✕

Practise

Live! Game

Press 'Practise'.

Independent practice



Joe
Ravenpuff School

Trophies
8/37

Points This Year
1127

Mastery
14 10 1

What to work on next?

Start a Practice

- 123 Estimate the result of a calculation by first rounding each number.
- 179 Expand two brackets.

Review Progress

YOUR COURSES

- Year 8
- Year 8 revision Assessment 1
- +Add Course

Notifications

- You received some feedback from a student regarding their work. 1 HOUR AGO
Round to significant figures
- ✓ You completed your homework for Ms M McDonagh and achieved 75% 1 HOUR AGO
Surd's retrieval week 1
- ✓ You completed your homework for 67%

Your teacher may assign you to one (or more) courses. E.g the 'Year 8' course outlines the topics you are learning this year and in the correct order. You can browse skills within the course and practise extra questions based on what you're currently learning.

Independent practice

Menu

dfm



Joe 42



Courses → Publishers → White Rose Maths

Year 8

The Year 8 scheme of work for White Rose Maths.



Autumn



- Ratio and scale
- Multiplicative change
- Multiplying and dividing fractions
- The Cartesian plane
- Representing data
- Table and probability

Spring



- Brackets, equations and inequalities
- Sequences
- Indices
- Fractions and percentages
- Standard form
- Number sense

Summer



- Angles in parallel lines and polygons
- Area of trapezia and circles
- Symmetry and reflection
- Data handling cycle
- Measures of location

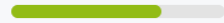
Simply choose the topic you are currently studying (or have already studied).

Independent practise

Autumn

Ratio and scale

2 skills



Multiplicative change

5 skills



Multiplying and dividing fractions

5 skills



The Cartesian plane

4 skills



Representing data

3 skills



Table and probability

3 skills



Put any introductory information about this unit here. Click to update.



105 Simplify ratios and form ratios from context.

Mastery: 58/100

Practise

Click on the video icons for worked examples.

OR NARROW DOWN

	VIDEO	DIFFICULTY	RECENT ACCURACY
<input type="checkbox"/> E105: Exam Practice: Simplify ratios and form ratios from context.	Example	1-4	
<input type="checkbox"/> K105a: Write a ratio in its simplest form.	Example	1	100%
<input type="checkbox"/> K105b: Write a ratio in the form $1 : n$ or $n : 1$.	Example	2	100%
<input type="checkbox"/> K105c: Determine the fraction that a number within a ratio represents.	Example	2	50%
<input type="checkbox"/> K105d: Determine the percentage that a number within a ratio represents.	Example	3	50%
<input type="checkbox"/> K105e: Determine a ratio to describe a situation.	Example	4	
<input type="checkbox"/> K105f: Write a ratio as a linear function.	Example	4	50%
<input type="checkbox"/> K105g: Convert an equation involving two variables into a ratio.	Example	4	100%

Independent practise

Autumn

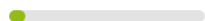
Ratio and scale

2 skills



Multiplicative change

5 skills



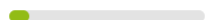
Multiplying and dividing fractions

5 skills



The Cartesian plane

4 skills



Representing data

3 skills



Table and probability

3 skills



Put any introductory information about this unit here. Click to update.



105 Simplify ratios and form ratios from context.

Mastery: 58/100

Practise

Select Key Skills you want to practise further (look at the recent accuracy as a guide).

OR NARROW DOWN

VIDEO

DIFFICULTY

RECENT ACCURACY

E105: Exam Practice: Simplify ratios and form ratios from context.

Example



1-4

K105a: Write a ratio in its simplest form.

Example



1

100%

K105b: Write a ratio in the form $1 : n$ or $n : 1$.

Example



2

100%

K105c: Determine the fraction that a number within a ratio represents.

Example



2

50%

K105d: Determine the percentage that a number within a ratio represents.

Example



3

50%

K105e: Determine a ratio to describe a situation.

Example



4

K105f: Write a ratio as a linear function.

Example



4

50%

K105g: Convert an equation involving two variables into a ratio.

Example



4

100%

- :: K105c Determine the fraction that a number within a ratio represents.
- :: K105d Determine the percentage that a number within a ratio represents.
- :: K105f Write a ratio as a linear function.

x
x
x

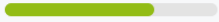
Practise

Independent practise

Autumn

Ratio and scale

2 skills



Multiplicative change

5 skills



Multiplying and dividing fractions

5 skills



The Cartesian plane

4 skills



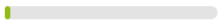
Representing data

3 skills



Table and probability

3 skills



Put any introductory information about this unit here. Click to update.



105 Simplify ratios and form ratios from context.

Mastery: 58/100

Practise

Or select Exam Practice (which is always at the top).

OR NARROW DOWN

VIDEO DIFFICULTY RECENT ACCURACY

<input checked="" type="checkbox"/> E105: Exam Practice: Simplify ratios and form ratios from context.	Example		1-4	
<input type="checkbox"/> K105a: Write a ratio in its simplest form.	Example		1	100%
<input type="checkbox"/> K105b: Write a ratio in the form $1 : n$ or $n : 1$.	Example		2	100%
<input type="checkbox"/> K105c: Determine the fraction that a number within a ratio represents.	Example		2	50%
<input type="checkbox"/> K105d: Determine the percentage that a number within a ratio represents.	Example		3	50%
<input type="checkbox"/> K105e: Determine a ratio to describe a situation.	Example		4	
<input type="checkbox"/> K105f: Write a ratio as a linear function.	Example		4	50%
<input type="checkbox"/> K105g: Convert an equation involving two variables into a ratio.	Example		4	100%

Independent practise

If you choose Exam Practise, you can change the difficulty of the questions and select your exam board (e.g. Edexcel, SQA, etc.)

Put any introductory information about this unit here. Click to update.

Start Practice

Skills: E105 Simplify ra... | v

Difficulty: 1-3 | v ?

Author: Exam Questions Only

Fixed number of questions
Either the system differentiates between the subskills in your selection (giving you harder or easier questions based on your changing mastery), or interleaving between all the skills in your selection.

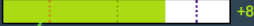
10 | v questions with differentiation | v

Accuracy required to finish
We'll interleave between the subskills within your selection. You need to achieve the required accuracy at each subskill.

Keep going until I say

Start

Independent practice



Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10

COMPLETION
10%

You are given that $m : n = 2 : 5$
You are also given that $a : b = 10m : 3n$
Work out $a : b$ where a and b are integers.

(2 marks)

:

Submit Answer

You can optionally leave a comment for your teacher about this question/your answer. Press Alt+Equals to insert mathematical expressions.

Send

✓ Correct

The answer is 4 : 3

$(10m =) 10 \times \text{their } \frac{2}{5}n (= 4n)$	M1	$10 \times 2 (= 20)$
4 : 3	A1ft	oe numerical r ft their $\frac{2}{5}n$ if u

Next Question

Continue Later

Answer questions in the usual way, watch video help and leave feedback for your teacher. Your teacher will be able to see the questions you have answered, even though you have not been set a task.

Independent practice

 **Joe**
Ravenpuff School



 Trophies
8/37

 Points This Year
1141

Mastery
 14 10 1

What to work on next?

[Start a Practice](#)

-  123 Estimate the result of a calculation by first rounding each number.
-  179 Expand two brackets.




[Review Progress](#)

YOUR COURSES

[Year 8](#)
[Year 8 revision Assessment 1](#)

[+Add Course](#)







My Homework

-  Expand and simplify Y8
Due 20 hours from now
-  Round to significant figures
-  surds retrieval week 2

67%

[Review All](#)

Notifications

-  You have been set a task by your teacher Ms M McDonagh. Click to start it.
1 HOUR AGO
Expand and simplify Y8
-  You received some feedback from a student regarding their work.
3 HOURS AGO
Round to significant figures
-  You completed your homework for Ms M McDonagh and achieved **75%**
3 HOURS AGO
Surds retrieval week 1
-  You completed your homework for Ms M McDonagh and achieved **67%**
4 HOURS AGO
Round to significant figures
-  You have been set a task by your teacher Ms M McDonagh. Click to start it.
5 HOURS AGO
Round to significant figures
-  You completed your homework for Ms M McDonagh and achieved **86%**

The 'Start a Practice' button also has some other review activities. Let's explore these:

Independent practice

Start a Practice

By Topic
Practise either exam questions, or to become confident with specific types of questions, practise our Key Skill questions.

Past Papers
Practise collections of questions from different exam boards.

Timestables
Brush up on your mental arithmetic.

Cleanup
Redo 4 questions you recently got incorrect.

The screenshot shows a blue interface with a close button (X) in the top right corner. Four callout boxes with arrows point to the 'By Topic', 'Past Papers', 'Timestables', and 'Cleanup' buttons, providing additional context for each practice option.

If you know the name of the skill you can search by topic for Key Skill and Exam practice.

Practice past papers online with immediate feedback if correct and review the mark scheme

Practice makes perfect 😊

Another chance to attempt questions you recently got wrong.

Help videos

How to complete and review an assigned task.



How to start an independent practice.

