

The logo consists of a black square with the lowercase letters 'dfm' in white. Below the square is a thin horizontal green bar.

dfm

Getting Started :: For Students

www.dr frostmaths.com

When you first log in...

You earn points by completing questions.

The screenshot shows the DFM interface for a user named Joe at Ravenpuff School. At the top, there is a navigation bar with a 'Menu' button, the 'dfm' logo, a search icon, and the user's name 'Joe' with a notification badge. Below the navigation bar, the user's profile is displayed, including a profile picture, name, and school. To the right of the profile, there are statistics: Trophies (2/37), Points This Year (28), and Mastery (0/0). The main content area is divided into several sections: 'What to work on next?' with a 'Start a Practice' button and a list of tasks; 'My Homework' with a list of tasks and their completion percentages; and 'Resources' with a link to 'Questions & Past Papers'. On the right side, there is a 'Notifications' section with a list of recent activities and achievements.

You can search for skills to practise here. For example, type 'Pythagoras'.

You can update your profile picture by clicking this. By default your school logo will be used.

If your teacher adds you to a course it will appear here.

On the right are notifications of tasks set to you and your own activity. You can click these. e.g. Clicking this one would allow you to review the questions you did.

You earn trophies by different DFM achievements, e.g. earning a certain number of points, or completing a certain number of questions correctly in a row. (Our favourite trophy is the 'Dave Trophy')

The top menu

The dfm home icon will bring you back to the dashboard.

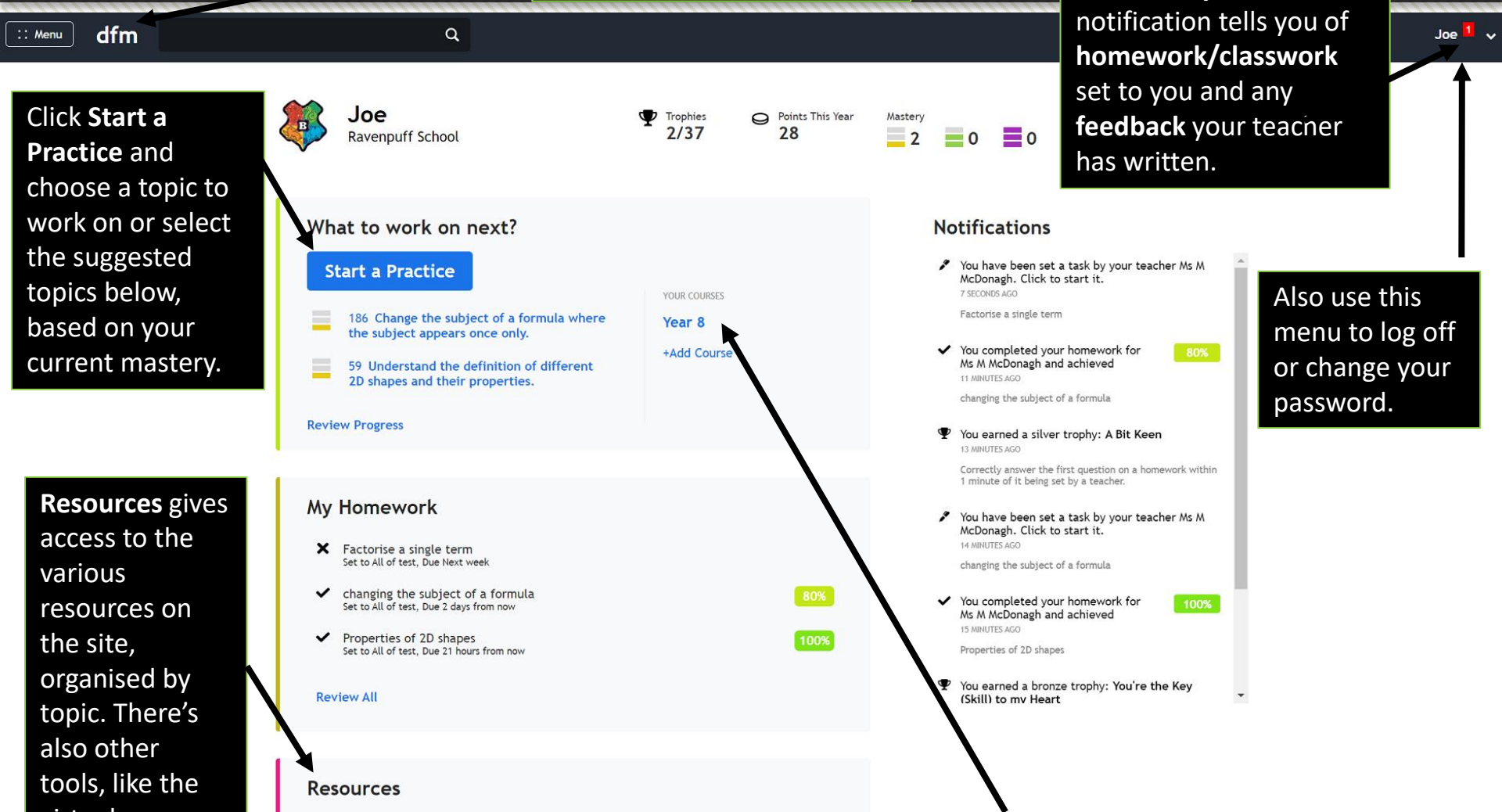
Your name gives you access to functionality related to you. The red notification tells you of homework/classwork set to you and any feedback your teacher has written.

Click **Start a Practice** and choose a topic to work on or select the suggested topics below, based on your current mastery.

Resources gives access to the various resources on the site, organised by topic. There's also other tools, like the virtual whiteboard and timestables games.

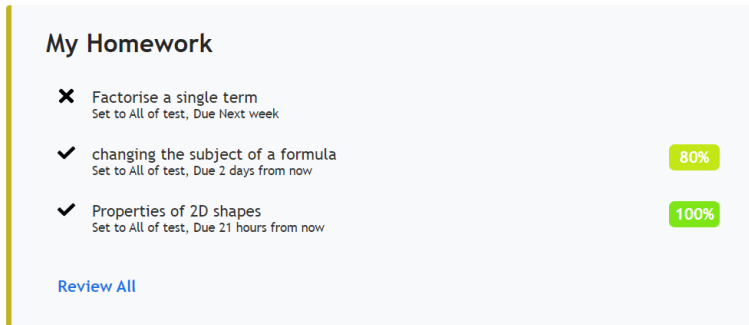
Also use this menu to log off or change your password.

Courses allow you to work through a scheme of work, whether produced by an exam board, your school, or one of the 'DFM Courses'. On a course you'll be able to answer questions, watch educational videos and download additional resources, relating to that course.



Completing a teacher set homework/reviewing your answers

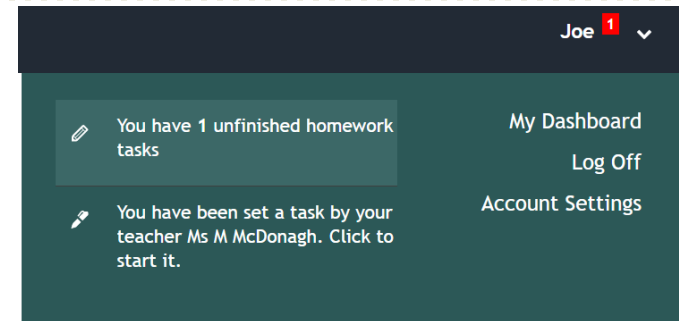
Step 1



My Homework

- ✗ Factorise a single term
Set to All of test, Due Next week
- ✓ changing the subject of a formula
Set to All of test, Due 2 days from now **80%**
- ✓ Properties of 2D shapes
Set to All of test, Due 21 hours from now **100%**

[Review All](#)



Joe 1 ▾

- You have 1 unfinished homework tasks
- You have been set a task by your teacher Ms M McDonagh. Click to start it.

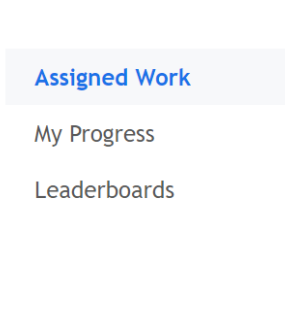
[My Dashboard](#)

[Log Off](#)

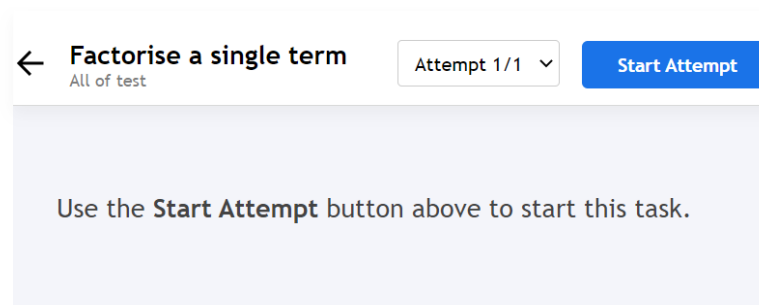
[Account Settings](#)

Use either the **'My Homework'** section on the home dashboard, or on the top menu, **[your name]** → unfinished homework tasks. Click on the task you wish to start.

Step 2



- Assigned Work**
- My Progress
- Leaderboards



← **Factorise a single term**
All of test

Attempt 1/1 ▾ **Start Attempt**

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

Click **Start Attempt** or **Continue Attempt** if you have already partially completed the homework.

Completing a teacher set homework/reviewing your answers

You can review answers to questions you've already answered. Just click the question numbers at the top to quickly scroll to a question out of those you've already seen/answered.

Step 3

The screenshot shows a homework review interface. At the top, there is a progress bar with question numbers Q1 through Q12. Q1, Q2, Q4, and Q5 are highlighted in green, Q3 in pink, and Q6 in dark grey. Q7 through Q12 are in light grey. To the right of the progress bar, it says 'COMPLETION 42%'. The main content area is split into two columns. The left column contains a question: 'Factorise fully' followed by the expression $10p^2 - 4p$. Below this is an input field containing the answer $2p(5p - 2)$ and a 'Submit Answer' button. Below the input field is a comment box with the text: 'You can optionally leave a comment for your teacher about this question/your answer. Press Alt+Equals to insert mathematical expressions.' and a 'Send' button. The right column shows a green banner with a checkmark and the word 'Correct'. Below this, it says 'The answer is $2p(5p - 2)$ '. Then, it provides an explanation: 'You need to find the highest number that is a common factor of 10 and -4. This number is 2. For the variables, take the lowest power of each variable in common, so p . We can write $2p(\quad)$ and consider what we need to multiply $2p$ by to get each of the terms. $10p^2 - 4p = 2p(5p - 2)$ '. At the bottom of the right column are two buttons: 'Next Question' and 'Continue Later'.

You can leave feedback to your teacher by typing in the comment box. Sometimes your teacher may require you to leave a feedback comment before moving on to the next question.

Reviewing Your Answers

Step 1

My Homework

- ✗ Solving equations Exam Practice
Set to All of test
- ✗ Solving equations and expanding brackets
Set to All of test
- ✓ Factorise a single term
Set to All of test, Due 6 days from now

75%

[Review All](#)

Go to **My Homework** on the dashboard. You can click on a task or select **Review All**. Alternatively, using the top-left menu, select **Progress Data**.

Step 2

Assigned Tasks

20/8/2022 to 24/1/2023

TASK	SET DATE	DUE DATE	COMPLETED	ACCURACY
Solving equations Exam Practice All of test Homework	Jan 17th	None	✗	100%
Solving equations and expanding brackets All of test Homework	Jan 17th	None	✗	100%
Factorise a single term All of test Homework	Jan 16th	Jan 24th 9:30am	✓	75%
changing the subject of a formula All of test Homework	Jan 16th	Jan 19th 9:30am	✓	80%
Properties of 2D shapes All of test Homework	Jan 16th	Jan 17th 9:30am	✓	100%

Click one of the items on the left.

For each task it will shows you the due date, if it's completed, and your performance.

Reviewing Your Answers

- Assigned Work
- My Progress
- Leaderboards

← **changing the subject of a formula** Attempt 1/1 Reattempt Task
All of test

You may be able to **Reattempt the Task** if your teacher has allowed this option.

Question 2 ✓
13 secs
K186b Change the subject of a linear formula requiring two steps. [Review](#)
CORRECT ANSWER:
[See full markscheme](#)
 $a = \frac{c-4b}{3}$
STUDENT ANSWER:
[Report Error](#)
 $a = \frac{c-4b}{3}$


Make a the subject of the formula:
 $3a + 4b = c$

[Write a new comment](#)

You can **write a new comment** when reviewing your work.

Question 3 ✗
13 secs
K186b Change the subject of a linear formula requiring two steps. [Review](#)
STUDENT ANSWER:
[Report Error](#)
 $a = 8c + 3b$

Make a the subject of the formula:
 $a + 3b = 8c$

 **Joe Bloggs** Jan 16th 11:42am I did add 3c instead of take away

[Write a new comment](#)

You will see any feedback you or your teacher have written here.

Question 4 ✓
23 secs
K186b Change the subject of a linear formula requiring two steps. [Review](#)
CORRECT ANSWER:
[See full markscheme](#)
 $x = \frac{4y+6}{7}$

Make x the subject of the formula:
 $7x + 3 = 4y + 9$

[Write a new comment](#)

Here you will see an explanation for Key Skill questions, or the original mark scheme for Exam Questions.

Reviewing Your Answers

- Assigned Work
- My Progress**
- Leaderboards

My Progress

Summary **Mastery by Topic** By Course Activity

You can see a summary of all your activity on DFM by selecting **My Progress** and **Activity**

20/8/2022 to 24/1/2023 All Activity

STUDENT	TASK	TIME TAKEN	WHEN	SCORE
Bloggs, Joe	Solving equations Homework	2 mins	1 hour ago	2/2
Bloggs, Joe	OCR GCSE(9-1) June 19 2F Independent Practice	-	-	0/0
Bloggs, Joe	OCR GCSE(9-1) June 19 2F Independent Practice	1 min	1 hour ago	6/7
Bloggs, Joe	OCR GCSE(9-1) June 19 2F Independent Practice	5 mins	1 hour ago	12/15
Bloggs, Joe	Solving Equations Homework	16 secs	1 hour ago	1/1
Bloggs, Joe	OCR GCSE(9-1) June 19 2F Independent Practice	-	1 hour ago	0/0
Bloggs, Joe	K262d Change the subject of a formula where the subject appears twice with a square root. Key Skill Practice	6 mins	2 hours ago	1/1
Bloggs, Joe	K114a Write a number as the product of its prime factors, K37a Identify prime numbers. Key Skill Practice	-	2 hours ago	0/0
Bloggs, Joe	K114b Write a product as the product of its prime factors. Key Skill Practice	-	2 hours ago	0/0
Bloggs, Joe	K186f Change the subject of a formula with fractions. Key Skill Practice	25 secs	23 hours ago	1/1
Bloggs, Joe	K186f Change the subject of a formula with fractions. Key Skill Practice	1 min	23 hours ago	2/2
Bloggs, Joe	K59a Know the names of polygons, K59b Understand the definition of different 2D shapes and their properties. Key Skill Practice	43 secs	23 hours ago	3/3
Bloggs, Joe	Clean Up Task	3 mins	Yesterday	1/1
Bloggs, Joe	Factorise a single term Homework	5 mins	Yesterday	9/12

You can see what type of activity was completed (Key Skill Practice, Clean Up, Homework)

Starting an independent practice

Getting good at maths takes practice! On top of any work your teachers might be setting you, we encourage you to work independently too.

Step 1

What to work on next?

[Start a Practice](#)

- 186 Change the subject of a formula where the subject appears once only.
- 59 Understand the definition of different 2D shapes and their properties.

If you want to practise a skill, then click **Start a Practice** on the main dashboard.

You will see links to suggested practice you may want to complete, based on your current mastery.

Step 2

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.

You'll then be presented with a number of options. Let's explore these...

Starting an independent practice

The two main types of questions you can practice are **Key Skills** and **Exam Practice**.

Key Skill questions should be your starting point to master very specific skills.

You'll get randomly generated (and hence unlimited!) questions of a specific type.

Exam Questions are, as you'd expect, questions from past exam papers. We work with a number of exam boards, e.g. Edexcel, AQA and OCR in the UK.

These will give a broader variety of questions on a topic.

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.

An opportunity to retry 4 questions you recently got wrong. (Note, if you get a question right this won't change it to "correct" on the original task)

Practising Key Skills

If you choose **Key Skills** for your practice, you'll see this page. Remember that Key Skills are great for **repeated practise at specific types of questions**.

dfm Joe 1

UK Curriculum By Course

- KS2
- KS3/4
- KS5

0 **2** **1** **0**

Recommended for You

- 186 Change the subject of a formula where the subject appears once only.
- 178 Factorise out a single term.
- 59 Understand the definition of different 2D shapes and their properties.

Mastering Skills

Each skill has a mastery level between 0 and 100. Getting to different thresholds will achieve 1, 2 or 3 bars of mastery at that skill.

Each skill consists of subskills (mostly Key Skills) of varying difficulties. To get to higher mastery at a skill, you not only need to get questions consistently correct; you need to also master subskills of higher difficulty. Suppose the difficulty within a skill varied from 1 to 4. You could get up to a mastery of 25/100 by answering difficulty 1 question, 50/100 by answering difficulty 2, and so on.

The mastery level also allows us to determine the most appropriate questions to choose for you/students when you select multiple subskills or when you practice/set a task on a skill as a whole.

Key Skills vs Exam Practice

There's two sources of questions. Exam Practice ('E' numbers) involves past paper exam questions from a variety of exam boards. Key Skills ('K' numbers) generate random questions on more specific question types, and are accompanied by shorter worked example videos.

Your selection

Select topics using the tree, then select a mixture of whole skills or the subskills within them.

Practise

Live! Game

Callout 1: If your teacher has given you a code for a Key Skill, e.g. K494, then search it here.

Callout 2: These bars summarise your progress on each Skill. Getting to different thresholds will give you a mastery level of 1, 2 or 3 bars. The count shows the number of skills you have achieved at each level of mastery.

Callout 3: You can access Key Skills by topic on the left by clicking the drop downs.

Callout 4: You will be recommended Key Skills to work on based on your current activity and mastery level.

Practising Key Skills

Suppose that we've chosen Factors, Multiples and Primes on the left...

The screenshot shows a web application interface for practicing math skills. On the left is a navigation menu with a search bar and a user profile 'Joe'. The main content area displays a tree view of skills, with 'Factors, Multiples and Primes' selected. Below this, three math problems are listed, each with a mastery level and a table of practice options. The 'Your selection' sidebar on the right contains instructions and two buttons: 'Practise' and 'Live Game'.

Navigation Menu:

- Data Handling & Probability (31 skills)
- Number (91 skills)
 - Bases
 - Basic Arithmetic
 - Calculator Use
 - Combinations & Permutations
 - Decimals
 - Factors, Multiples and Primes**
 - Fractions
 - Fractions, Decimal & Percentage Equivalences
 - Negative Numbers
 - Order of Operations
 - Percentages
 - Powers, Roots & Laws of Indices
 - Ratio & Proportion
 - Roman Numerals
 - Rounding & Estimation
 - Sets
 - Standard Form
 - Surds

Main Content Area:

KS3/4 → Number →

Factors, Multiples and Primes

33 Find factors of a number.
Mastery: 0/100

OR NARROW DOWN	VIDEO	DIFFICULTY	RECENT ACCURACY
<input type="checkbox"/> E33: Exam Practice: Find factors of a number. Example		1-4	
<input type="checkbox"/> K33a: Find factors of a number. Example		1	
<input type="checkbox"/> K33b: Find factor pairs of a number. Example		1	
<input type="checkbox"/> K33c: Find multiples of a number. Example		1	

34 Identify common factors of two numbers.
Mastery: 0/100

OR NARROW DOWN	VIDEO	DIFFICULTY	RECENT ACCURACY
<input type="checkbox"/> E34: Exam Practice: Identify common factors of two numbers. Example		1-4	

35 Find multiples of a number.
Mastery: 0/100

OR NARROW DOWN	VIDEO	DIFFICULTY	RECENT ACCURACY
<input type="checkbox"/> E35: Exam Practice: Find multiples of a number. Example		1-4	

Your selection

Select topics using the tree, then select a mixture of whole skills or the subskills within them.

[Practise](#)

[Live Game](#)

Practising Key Skills

The screenshot shows the 'dfm' website interface. On the left is a navigation menu with categories like 'Data Handling & Probability', 'Number', 'Bases', 'Basic Arithmetic', 'Calculator Use', 'Combinations & Permutations', 'Decimals', 'Factors, Multiples and Primes', 'Fractions', 'Fractions, Decimal & Percentage Equivalences', 'Negative Numbers', 'Order of Operations', 'Percentages', 'Powers, Roots & Laws of Indices', 'Ratio & Proportion', 'Roman Numerals', 'Rounding & Estimation', 'Sets', 'Standard Form', and 'Surds'. The main content area displays a list of key skills. One skill is highlighted in a modal window: 'K114a: Write a number as the product of its prime factors.' Below the title is the instruction 'Write 385 as the product of its prime factors.' and a 'Submit Answer' button. To the right of the modal is a black box with white text: 'Pressing the Example button on a Key Skill will bring up an example question. Your answer won't be saved, so don't worry about wrong answers!'. Below the modal, the list of skills continues, with 'Example' buttons next to each. A table below the list has columns for 'VIDEO', 'DIFFICULTY', and 'RECENT ACCURACY'. An arrow points from the 'Example' button for 'K114a' to a video player. The video player shows a person writing on a board with a prime factor tree for 360: 360 -> 360 / 10 = 36 -> 36 / 6 = 6 -> 6 / 2 = 3. The video player has 'Watch later' and 'Share' buttons. A black box with white text says: '...and the video icon brings up a video showing a worked example. These are typically 2-4 minutes long.'

Pressing the **Example** button on a Key Skill will bring up an example question. Your answer won't be saved, so **don't worry about wrong answers!**

...and the video icon brings up a video showing a worked example. These are typically 2-4 minutes long.

Your selection

Select topics using the tree, then select a mixture of whole skills or the subskills within them.

Practise

Live! Game

dfm Key Skill - Write a number as the product of its prime factors. Watch later Share

KS WRITE A NUMBER AS THE PRODUCT OF ITS PRIME FACTORS

360
360 / 10 = 36
36 / 6 = 6
6 / 2 = 3

Watch on YouTube

Practising Key Skills

Check the boxes for the Key Skills you want to practise.



37 Identify prime numbers.

Mastery: 0/100

OR NARROW DOWN

VIDEO DIFFICULTY RECENT ACCURACY

E37: Exam Practice: Identify prime numbers.

Example



1-4

K37a: Identify prime numbers.

Example



1



114 Find the prime factorisation of a number.

Mastery: 0/100

OR NARROW DOWN

VIDEO DIFFICULTY RECENT ACCURACY

E114: Exam Practice: Find the prime factorisation of a number.

Example



1-4

K114a: Write a number as the product of its prime factors.

Example



1

K114b: Write a product as the product of its prime factors.

Example



2

Your selection

:: K37a Identify prime numbers. ×

:: K114b Write a product as the product of its prime factors. ×

Practise

Live! Game

Your selection will appear on the right. It's possible to mix skills from different topics. Click **Practise** to start.

Practising Key Skills

Start Practice

Skills: **K37a Identify pr...**

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 questions with **differentiation**

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

Keep going until I say

Start

If you choose a fixed number of questions to complete with **differentiation**, the system will give you questions based on your current level of mastery for that skill (making the questions harder/easier if you get them right/wrong). If you choose **interleaving**, the system will cycle through your selected Key Skills until you've answered your chosen number of questions.

Start Practice

Skills: **K114b Write a pr...**

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.

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

4 out of the last 5 questions correct on each subskill, **without interleaving**

Keep going until I say

Start

If you choose **Accuracy required to finish** (e.g. 4 out of the last 5 questions correct), **without interleaving** means you need to get 4 out of 5 questions correct on the first skill, then the system moves you on to the next skill. With interleaving means you need to get 4 out of the last 5 questions correct as the system cycles through the key skills.

Or just **keep going** until you tell the system that you've had enough!

Practising Key Skills

You should now see a page like this, depending on what skills you select:

The screenshot shows a math practice interface. At the top left is the logo 'dfm'. Below it, the text reads 'KS3/4 → Number → Factors, Multiples and Primes' and 'K114a: Write a number as the product of its prime factors.' To the right of this is a button labeled 'Watch Worked Example'. On the right side of the interface is a toolbar with icons for a pen, eraser, selection tools, and text input. Below the toolbar is a question area with a progress bar showing 'Q1' selected and 'COMPLETION 0%'. The question text is 'Write 330 as the product of its prime factors.' Below the text is an input field with a pen icon and a green 'Submit Answer' button. To the right of the question area is a large grid for rough working. Handwritten in the grid is a prime factor tree for 330: 330 is at the top, branching into 10 and 33. 10 branches into 5 and 2. 33 branches into 3 and 11. Three callout boxes provide instructions: one points to the 'Submit Answer' button, another points to the 'Watch Worked Example' button, and a third points to the rough working area.

dfm

KS3/4 → Number → Factors, Multiples and Primes

K114a: Write a number as the product of its prime factors.

Watch Worked Example

Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10

COMPLETION 0%

Write 330 as the product of its prime factors.

Submit Answer

Enter your answer here.

If you get stuck, click **Watch Worked Example**. It'll pop up within the page, so you won't leave your question.

Click this button once you've entered your answer.

Clicking the **pen icon** brings up a space for you to do rough working. The buttons at the top give you tools for drawing straight lines, circles, text, mathematical notation or rubbing things out.

330
/ \
10 33
/ \ / \
5 2 3 11

Practising Key Skills

KS3/4 → Algebra → Changing the Subject

K262d: Change the subject of a formula where the subject appears twice with a square root.

Watch Worked Example



Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10

COMPLETION
0%

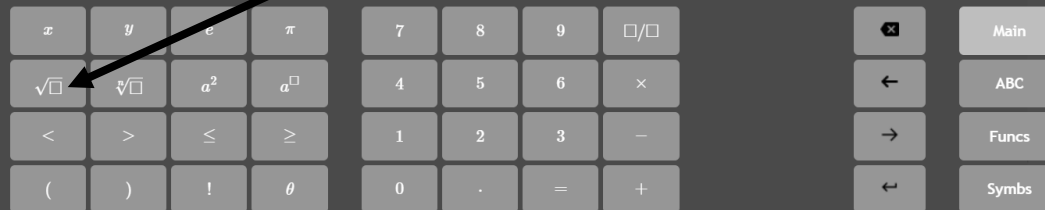
Make a the subject of the formula where a is positive:

$$b = \sqrt{\frac{4a + 2}{6a + 1}}$$

$a =$

Submit Answer

If a question requires an algebraic input, use the buttons to allow you to enter things like fractions and roots.



Practising Key Skills

Getting a question correct increases your mastery score (The score is from 1-100). The orange, green and purple dotted lines indicate the threshold required to move your mastery on to the next level.

The screenshot shows the DFM interface. At the top, it says "Your mastery for this skill has increased." with a mastery score of 262 and a progress bar. A "Watch Worked Example" button is visible. The question asks to make a the subject of the formula $b = \sqrt{\frac{4a+2}{6a+1}}$. The student's answer is $a = \frac{2-b^2}{2(3b^2-2)}$. The system has marked this answer as "Correct" and provided a detailed explanation of the steps to solve for a .

dfm Your mastery for this skill has increased. 262 Change the subject of a formula where the subject appears multiple times. Watch Worked Example +8

Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 COMPLETION 0%

Make a the subject of the formula where a is positive:

$$b = \sqrt{\frac{4a+2}{6a+1}}$$
$$a = \frac{2-b^2}{2(3b^2-2)}$$

Submit Answer

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

Send

Correct

The answer is $a = \frac{2-b^2}{6b^2-4}$

You need to square both sides, multiply by the denominator, put a on the left hand-side, factorise by a , and then divide by the bracket.

$$b = \sqrt{\frac{4a+2}{6a+1}}$$
$$b^2 = \frac{4a+2}{6a+1}$$
$$\begin{array}{l} \times(6a+1) \downarrow \\ 6b^2a + b^2 = 4a + 2 \\ 6b^2a - 4a = 2 - b^2 \\ a(6b^2 - 4) = 2 - b^2 \\ \div(6b^2-4) \downarrow \end{array} \quad \begin{array}{l} \downarrow \times(6a+1) \\ \\ \\ \downarrow \div(6b^2-4) \end{array}$$
$$a = \frac{2-b^2}{6b^2-4}$$
$$\therefore a = \frac{2-b^2}{6b^2-4}$$

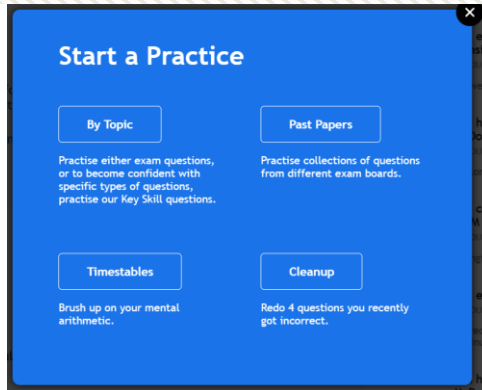
Next Question Continue Later

Whether you got the question right or wrong, you'll get an explanation of how to do the question. DFM is clever enough to know if any variations of correct answers are correct. See how the student's response was factorised in the denominator, but has still been marked as correct.

If you still don't understand with the explanation, use the **Watch Worked Example** button to watch a video.

Practising Past Papers

Step 1



Go to Start a Practice → Past Papers

Step 2



Past Papers

Past papers from major exam boards such as Edexcel, OCR, AQA, the DFE Skills Testing Agency and the UK Mathematics Trust.

Sort: Last Updated

- Past Papers
- Ravenpuff School
- Revision
- Topic Tests

American Maths Association 13 worksheets The American Maths Challenge and AIME (invitational Olympiad).	AQA 76 worksheets GCSE papers and Further Maths Level 2 Certificate papers.	Cambridge Mathematical Institute 9 worksheets The CTMJUA, used as the admissions test for prospective undergraduates.	CCEA 28 worksheets Qualifications for Northern Ireland.
Eduqas 11 worksheets GCSE papers for the Welsh exam board.	Mathematical Association 21 worksheets Primary Maths Challenges.	OCR 156 worksheets GCSE and A Level papers.	UKMT 247 worksheets Junior, Intermediate and Senior Maths Challenge papers from the UK Mathematics Trust, including Olympiad and Kangaroo papers.
Pearson Edexcel 608 worksheets GCSE, IGCSE and A Level papers.	SATS 129 worksheets KS2 and KS3 SATs produced by the UK's Department for Education.	SQA 33 worksheets Scottish Qualifications Authority. National 5, Higher and Advanced Higher.	Imperial and Imperial for university admissions.
WJEC 92 worksheets GCSE papers.			

Then select an exam board of your choosing.

...or you can view any collections of questions created by your school.

...or you can try **Topic Tests** on each topic ('Standard' and 'Advanced').

Practising Past Papers

Keep navigating through the folders until you find paper you want to do. For example, this paper was accessed via *OCR* → *GCSE Foundation (9-1)*

Menu dfm

← / DFM / Past Papers / OCR / GCSE Foundation (9-1)
OCR GCSE(9-1) June 19 2F

Joe 1

Practise This Worksheet

Question 15 1 2 3 4

[OCR GCSE(9-1) June 2019 2F Q5b]

Work out $2^3 \times \sqrt{49}$

(2 marks)

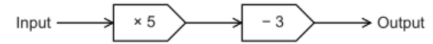
Submit Answer

Report Error

Question 16 1 2 3 4

[OCR GCSE(9-1) June 2019 2F Q6ai]

Here is a function machine



Find the output when the input is 7

(1 mark)

Submit Answer

Report Error

If you want to look at other papers, use the **back button** (or use your browser's back button).

You'll get a preview of the questions, but will be prevented from entering any answers here. Click **Practise this Worksheet** to begin

Completing a Past Paper

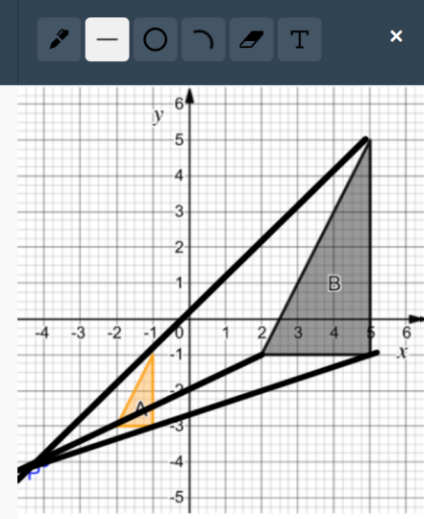
You can complete the questions in any order, this allows you to come back to a question, or start where you feel most confident.

dfm No Calculator Allowed Author: OCR Difficulty: 1 2 3 4

Get Video Help on this Topic

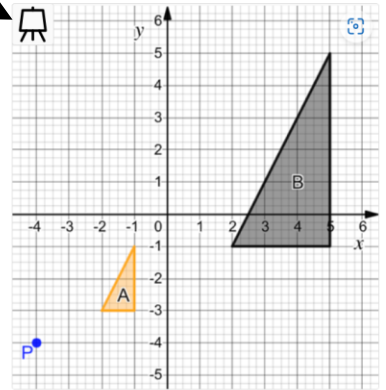
Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15 Q16 Q17 Q18 Q19 Q20 Q21 Q22 Q23
Q24 Q25 Q26 Q27 Q28 Q29 Q30 Q31 Q32 Q33 Q34 Q35 Q36 Q37 Q38 Q39 Q40 Q41 Q42 Q43 Q44 Q45 Q46
Q47 Q48 Q49 Q50

COMPLETION 0%



If you hover over an image, the easel icon will appear on the top left. Click the icon and the same image will appear on the right for you to annotate and do rough working.

Triangle A and triangle B are drawn on the grid below.



Describe fully the single transformation that maps triangle B onto triangle A.

[Note: enter fractions as c/d. The point should be entered as (x,y) without any spaces]

(3 marks)

Transformation type

by a scale factor

about point

Submit Answer

K173a: Describe an enlargement with an integer scale factor.

dfm Key Skill - Describe an enlargement with a positive scale factor.

Describe the transformation from A to B.

① Centre of enlargement

② scale factor

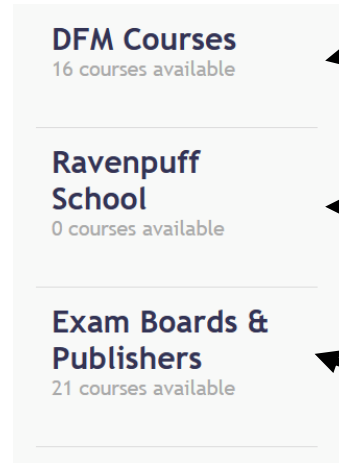
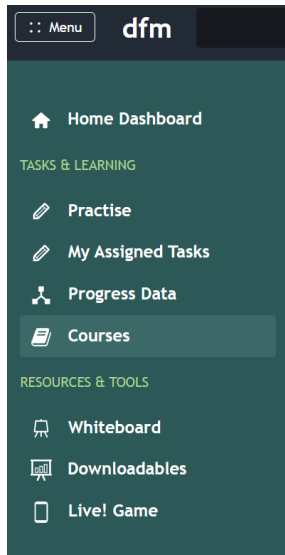
An enlargement by scale factor

Watch on YouTube

Working Through a Course

It might be that you're working through a scheme of work for your year group, or a course for a particular exam board (e.g. 'Edexcel A Level Maths'). It would therefore be helpful to see everything available to you in a particular term/module rather than topics individually. This is what the **Course** system is for.

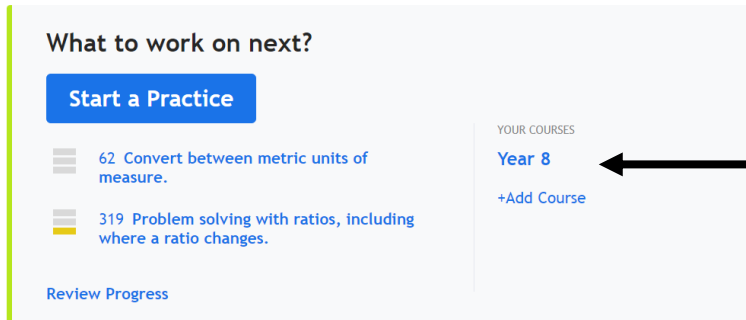
Step 1 →



DFM Courses are courses we've crafted where the topics are in a nice learning order.

If you have a school account, your school should appear here. If you're lucky, your teachers might have set up a course for your scheme of work!

The last option gives you courses by exam boards (e.g. Edexcel, AQA, OCR in the UK) and publishers (e.g. White Rose Maths).



If your teacher has put you on a course, there will be a link on your home dashboard to quickly access it.

Working Through a Course

Step 2

Press **Go** on the course you are interested in.

The screenshot shows a website interface for Ravenpuff School. At the top, there is a navigation bar with a menu icon, the text 'dfm', a search icon, and a user profile 'Joe' with a notification badge '4'. Below the navigation bar, the breadcrumb 'Courses → Schools → Ravenpuff School' is visible. The main content area features a large image of a school building. On the left, there are three categories: 'DFM Courses' (16 courses available), 'Ravenpuff School' (6 courses available), and 'Exam Boards & Publishers' (21 courses available). The main content is divided into four sections: 'Year 7', 'Year 8', 'Year 9', and 'AQA Level 2 Certificate in Further Maths'. Each section has a progress bar with a green segment indicating progress. A callout box with an arrow pointing to the Year 8 progress bar contains the text: 'The green bar shows your progress through that course. This is based on your total 'mastery' of all skills within the course.'

DFM Courses
16 courses available

Ravenpuff School
6 courses available

Exam Boards & Publishers
21 courses available

Year 7

Autumn
Spring
Summer

Go

Year 8

Autumn
Spring
Summer

Go

Year 9

Autumn
Spring
Summer

AQA Level 2 Certificate in Further Maths

1. Number
2. Algebra

The green bar shows your progress through that course. This is based on your total 'mastery' of all skills within the course.

Working Through a Course

Step 3

Select a particular topic. If a module/term has more than one topic, there will also be a 'Revision' unit available.



Courses → Schools → Tiffin School →

Year 8



In Year 8 you'll extend some of the fundamentals you learnt in Year 7, but exploring a number of new topics. In particular, you'll expand your repertoire of algebraic skills, looking at straight line equations (" $y = mx + c$ "), manipulating equations, algebraic fractions and expanding multiple brackets. Year 8 also features a Data Handling project, analysing factors that affect the prices of cars.



Autumn 1

Rules of Algebra
Changing the Subject
Quadrilaterals
Angles in Polygons
Revision

Autumn 2

Straight Line Graphs
Counting
Revision

Spring 1

Collecting Data
Charts, Quartiles & Frequency Diagrams
Scatter Graphs
Revision

Working Through a Course

Use the back button (or your browser's back button) to return to the full course view.



Solving Equations

Solving Simple Linear Equations

1 skills



Solving Equations with Brackets

1 skills



An **equation** is when we have an = symbol between two expressions, for example $2x + 1 = 7$. This means the value on each side of the equals must be the same. To **solve an equation** means to find the value of the variable (i.e. letter) in the equation.

Later on we will use formal steps to solve equations, but for the moment we could do it by just thinking backwards. $2x + 1 = 7$ means 'If I have a number x , multiply it by 2, and add 1, I get 7'. Working backwards, the number we had before adding 1 to get 7, was 6. And what multiplied by 2 gives you 6? It's 3. So the solution to the equation is $x = 3$.

181 Solve linear equations where the variable appears on one side of the equation only.

Mastery: 83/100

Practise

OR NARROW DOWN

VIDEO DIFFICULTY RECENT ACCURACY

<input type="checkbox"/> E181: Exam Practice: Solve linear equations where the variable appears on one side of the equation only.	Example	1-4	
<input type="checkbox"/> K181a: Solve a one-step equation.	Example	1	100%
<input type="checkbox"/> K181b: Solve a two-step equation where the solution is a positive integer.	Example	2	100%
<input type="checkbox"/> K181c: Solve a general two-step equation.	Example	2	100%
<input type="checkbox"/> K181d: Solve a linear equation with brackets.	Example	3	50%
<input type="checkbox"/> K181f: Solve a two-step equation with possible negative coefficient of the unknown.	Example	4	71%

As you saw earlier, you can click the **Example** and **Video** icons before you begin a **Practice**. Remember your scores won't be saved if you answer an example question.

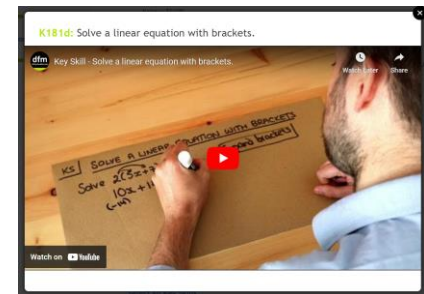
Any Key Skills associated with this unit will be listed here. Remember that Key Skills are randomly generated questions designed for mastering very specific kinds of questions.

Exam Practice is here.

Revision

Select all Key Skills
Select all Exam Practice

There may be downloadable DFM slides, worksheets, question compilations and external links the teacher has included.



The most important thing...

Enjoy & Achieve

Everyone can do maths and do maths well. It's just breaking down the barriers that prevent you from understanding a topic well.

- Use the Key Skills (with the worked example videos) to master individual skills first.
- Look at the explanations/feedback when you get a question wrong.
- Go onto Exam Questions when you're feeling more confident.
- Practise regularly – things will eventually become more familiar and 'second nature', and you'll make less mistakes!

Dr Frost



Failed the 11+ and was once pretty naff' at maths. Worked hard and now has a PhD and a First from Oxford. #minorbrag