
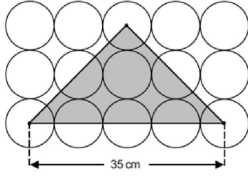


Mr Coles' 8X2 Maths Weekly Task Grid – Week commencing 29th June

Choose **1 purple task**, **1 orange task**, **2 green tasks (answers now included)** and **1 yellow task** from the grid. Complete them this week.

<p>Task 1</p> <p>Make a mind map of any Multiplying or Dividing by 10, 100 etc information you feel comfortable with so far, examples of how you do it, things like that. Add to it as you go along.</p>	<p>Task 2</p> <p>Multiply Decimals by 10 and 100 has been set on MyMaths. Make sure you do the lesson first.</p> <p>Log on with your individual logins (email me if you can't get on). Work through the exercises then attempt the homework.</p>	<p>Task 3</p> <p>Division by 10, 100, 1000 and Multiplication by 10, 100, 1000 on Corbett Maths but I want to make clear that you need to concentrate on doing this with the decimal questions, which is the bottom 8 questions in each section ONLY Videos: Multiplying and then Dividing Questions: Multiplying and then Dividing Answers: Multiplying and then Dividing Have a go at some Apply questions too</p>	<p>Task 4</p> <p>Create a poster/PowerPoint/revision cards on Multiplying and Dividing with powers of 10.</p> <p>Website to help:</p> <p>BBC Bitesize – Easier with whole numbers BBC Bitesize – Harder with decimals</p>
<p>Task 5</p> <p>Make a quiz/PowerPoint /Kahoot on questions involving Multiplying or Dividing by 10, 100 etc</p> <p>Questions can involve anything to do with it. The more unique the better! Good ones will be featured on next week's grid.</p>	<p>Task 6</p> <p> This is almost the same as Task 3 BUT it uses powers of 10 rather than the actual numbers, so it's mildly harder. Do a random selection of questions, make sure to do decimal ones and some Apply ones too. Videos: Multiplying and then Dividing Questions: Multiplying and then Dividing Answers: Multiplying and then Dividing</p>	<p>Task 7</p> <p>Functional: Sean works for a company. His normal rate of pay is £12 per hour. When Sean works more than 8 hours a day, he is paid overtime for each hour he works more than 8 hours. Sean's rate of overtime pay per hour is $1\frac{1}{4}$ times his normal rate of pay per hour. On Monday Sean worked for 10 hours. Work out the total amount of money Sean earned on Monday. Enlarged on next pages.</p>	<p>Task 8</p> <p>If you aren't sure how to do any of these, just email me. I've enlarged the questions on the next page</p> <ol style="list-style-type: none"> 1) 26.2×7.3 2) Share £120 in the ratio 7: 2: 3 3) Decrease 72 by 25% 4) $12 - 35 \div 5 + \sqrt{100}$ 5) A recipe for 4 biscuits needs 50g of flour. How much flour is needed for 10 biscuits? 6) Expand $4x(x - 5)$ 7) Solve $8x - 5 = 75$ 8) Factorise fully $8x + 16$ 9) What is the LCM of 6 and 9 10) $\frac{1}{6} + \frac{5}{9}$
<p>Task 9</p> <p>Play this game on the Splashlearn website that will help you with multiplying by powers of 10</p> <p>NEW</p>	<p>Task 10</p> <p>Watch this video on Powers of ten on YouTube. It is narrated by God. Bonus point if you can tell me why I wrote that.</p> <p>NEW</p>	<p>Task 11</p> <p>Problem Solving: The diagram shows 15 identical circles, arranged as a rectangle, and a shaded triangle. The vertices of the triangle are at the centre of circles.  Calculate the area of the shaded triangle. Enlarged on next pages.</p>	<p>Task 12</p> <p>NEW Go to www.mrcartermaths.com</p> <p>Log on with the following details: U: student@stocksbridgehigh.co.uk P: Prism240 Click on <i>secondary</i> > <i>Scroll to Core Skills</i> > <i>Stage 2</i> And select Divide by 10 (In Fractions Decimals Percentages). Do as many questions as you like and then check your answers.</p>

Task 7

Functional:

Sean works for a company.

His normal rate of pay is £12 per hour.

When Sean works more than 8 hours a day, he is paid overtime for each hour he works more than 8 hours.

Sean's rate of overtime pay per hour is $1\frac{1}{4}$ times his normal rate of pay per hour.

On Monday Sean worked for 10 hours.

Work out the total amount of money Sean earned on Monday.

Task 8

- 1) 26.2×7.3
- 2) Share £120 in the ratio 7: 2: 3
- 3) Decrease 72 by 25%
- 4) $12 - 35 \div 5 + \sqrt{100}$
- 5) A recipe for 4 biscuits needs 50g of flour. How much flour is needed for 10 biscuits?
- 6) Expand $4x(x - 5)$
- 7) Solve $8x - 5 = 75$
- 8) Factorise fully $8x + 16$
- 9) What is the LCM of 6 and 9
- 10) $\frac{1}{6} + \frac{5}{9}$

Task 9 Question 1

Bill would like an ice cream sundae. He has five flavours to choose from: Vanilla, Chocolate, Cookies and Cream, Strawberry and Peach. He can choose two flavours for his sundae.

- 1) List all possible combinations.
- 2) Write down the probability that a random sundae contains chocolate ice cream.
- 3) Write down the probability that a random sundae contains a fruit flavoured ice cream.

Task 9 Question 2

Bill would like a pizza. He has five toppings to choose from: pepperoni, ham, mushrooms, pepper and chicken. He can choose two toppings for his pizza.

- 1) List all possible combinations.
- 2) Write down the probability that a random pizza contains a vegetable.
- 3) Write down the probability that a random pizza contains meat and a vegetable.

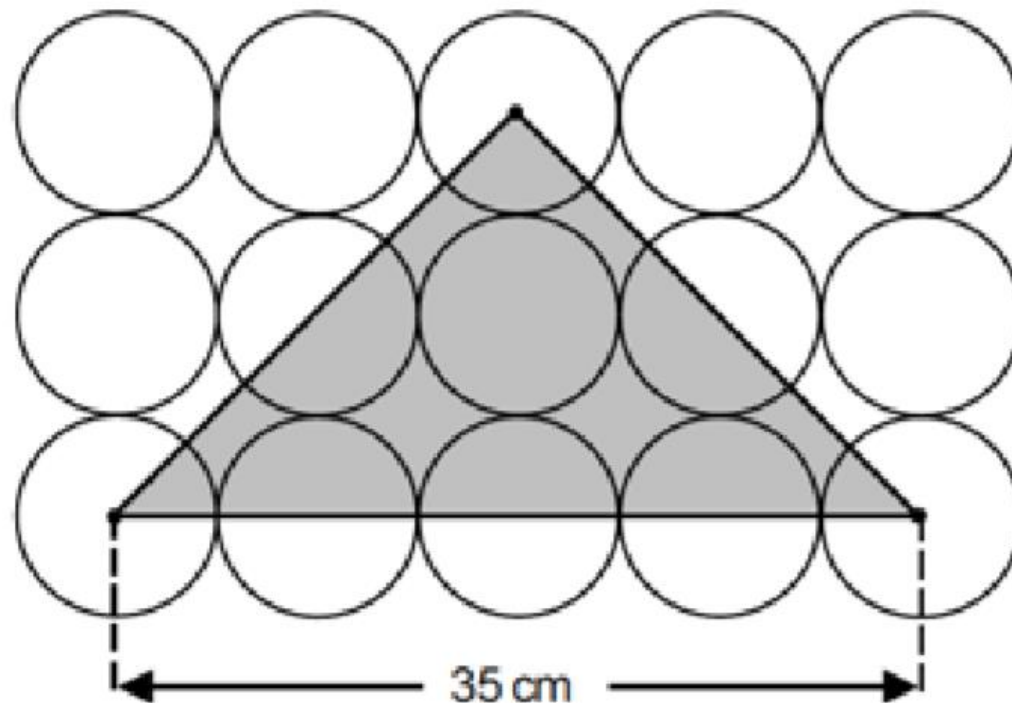
James B.

Task 11

Problem Solving:

The diagram shows 15 identical circles, arranged as a rectangle, and a shaded triangle.

The vertices of the triangle are at the centre of circles.



Calculate the area of the shaded triangle.

Task 12: Green Answers (Task 7, 8, 11)

Quick 10 – Recall

- 1) 26.2×7.3 **191.26**
- 2) Share £120 in the ratio 7:2:3
£70 : £20 : £30
- 3) Decrease 72 by 25%
54
- 4) $12 - 35 \div 5 + \sqrt{100}$ **15**
- 5) A recipe for 4 biscuits needs 50g of flour. How much flour is needed for 10 biscuits? **125g**
- 6) Expand $4x(x - 5)$ **$4x^2 - 20x$**
- 7) Solve $8x - 5 = 75$ **$x = 10$**
- 8) Factorise fully $8x + 16$
 $8(x + 2)$
- 9) What is the LCM of 6 and 9
18
- 10) $\frac{1}{6} + \frac{5}{9} = \frac{39}{45} = \frac{13}{15}$

Need to know
formulae/facts
First 5 cube numbers

**1, 8, 27,
64, 125**

Use of a
calculator
Calculate

$$\sin^{-1}\left(\frac{2}{5}\right) = 22.0^\circ$$

Functional:

Sean works for a company.

His normal rate of pay is £12 per hour. **$8 \times 12 = £96$**

When Sean works more than 8 hours a day, he is paid overtime for each hour he works more than 8 hours.

Sean's rate of overtime pay per hour is $1\frac{1}{4}$ times his normal rate of pay per hour.

On Monday Sean worked for 10 hours.

$$1.25 \times 12 = 15$$

Work out the total amount of money Sean earned on Monday.

$$15 \times 2 = £30$$

$$96 + 30 = £126$$

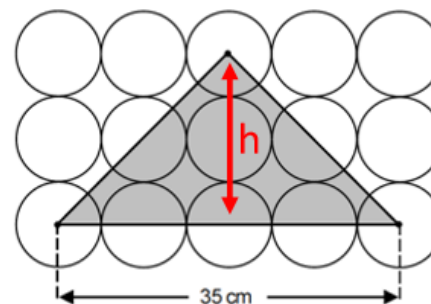
Problem Solving:

The diagram shows 15 identical circles, arranged as a rectangle, and a shaded triangle.

The vertices of the triangle are at the centre of circles.

$$\begin{aligned} \text{Area} &= \frac{35 \times 17.5}{2} \\ &= 306.25\text{cm}^2 \end{aligned}$$

$$\begin{aligned} h &= 4 \text{ radius} \\ &= 4 \times 4.375 \\ &= 17.5\text{cm} \end{aligned}$$



Calculate the area of the shaded triangle.

$$\begin{aligned} 35\text{cm} &= 8 \text{ radii} \\ \text{Radius} &= 35 \div 8 = 4.375 \end{aligned}$$