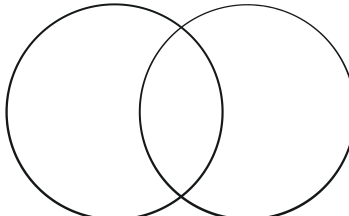
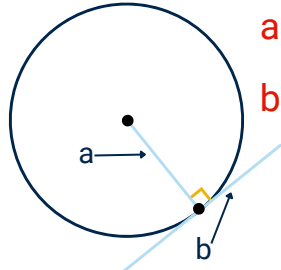
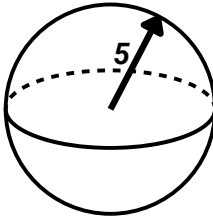
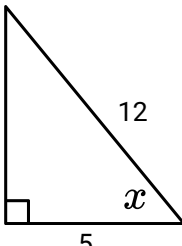
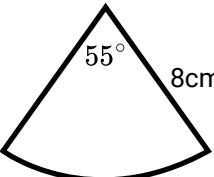
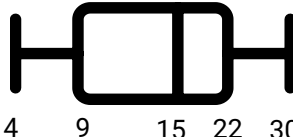
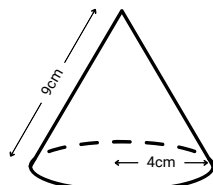




# CCEA GCSE Maths Revision Mat

M3



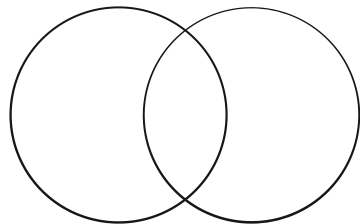
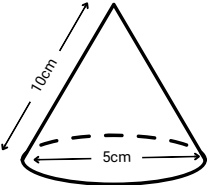
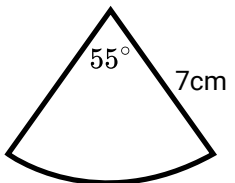
|                                                                                                                                                                                              |                                                                                                                                                              |                                                                                                                                                                                             |                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Match the statements</p> <p>Expression <del><math>10x + 6 = 46</math></del></p> <p>Equation <del><math>3x + 5</math></del></p> <p>Identity <del><math>5x + 20 = 5(x + 4)</math></del></p> | <p>Expand and simplify:</p> <p><math>(x + 4)(x + 7)</math></p> <p><math>x^2 + 11x + 28</math></p>                                                            | <p>Factorise</p> <p><math>x^2 + 9x + 20</math></p> <p><math>(x + 4)(x + 5)</math></p>                                                                                                       | <p>Find the LCM of 24 and 36 using product of primes.</p> <p><math>72</math></p>               |
| <p>In a sale, a TV is reduced to £540 after a 10% discount.</p> <p>Find the original price.</p> <p><math>£600</math></p>                                                                     | <p>A force of 240N acts on an area of <math>12\text{m}^2</math></p> <p>Calculate the pressure.</p> <p><math>20 \text{ N/m}^2</math></p>                      | <p>Name the parts of the circle marked</p>  <p><math>a</math> - radius<br/><math>b</math> - tangent</p> | <p>Find the surface area of a sphere of radius 5cm.</p>  <p><math>314.2\text{cm}^2</math></p> |
| <p>Calculate the value of angle <math>x</math>.</p>  <p><math>65.4^\circ</math></p>                       | <p>Find the area of the sector</p>  <p><math>30.7 \text{ cm}^2</math></p> | <p>Find the lower quartile and upper quartile from the box plot.</p>  <p><math>LQ=9, UQ=22</math></p>  | <p>Find the curved surface area of the cone.</p>  <p><math>113.1\text{cm}^2</math></p>       |



# CCEA GCSE Maths Revision Mat

## M3



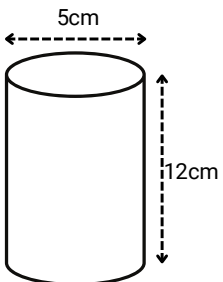
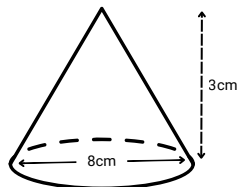
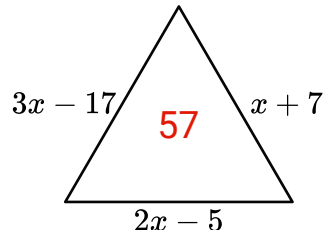
|                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                      |                                                                                                                                                |                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The line <math>y=3x-4</math> is parallel to line <math>L</math></p> <p>Line <math>L</math> passes through the point <math>(2,5)</math>.</p> <p>Find the equation of line <math>L</math>.</p> <p><math>y=3x-1</math></p> | <p>Expand and simplify:</p> $(2x - 4)(x + 5)$ <p><math>2x^2 + 6x - 20</math></p>                                                                                                                                                                                                                     | <p>Factorise:</p> $x^2 - 3x - 28$ <p><math>(x - 7)(x + 4)</math></p>                                                                           | <p>Find the HCF of 72 and 120 using product of primes.</p> <p><math>24</math></p>     |
| <p>A ladder leans against a wall. The ladder is 7m long and makes an angle of <math>68^\circ</math> with the ground.</p> <p>Calculate how high up the wall the ladder reaches.</p> <p><math>6.49\text{m}</math></p>        | <p>A vase rests on a table. The circular base of the vase has radius 4cm. The weight of the vase exerts a force of 160N.</p> <p>Calculate the pressure on the table.</p> <p><math>3.18 \text{ N/cm}^2</math></p>  | <p>A length is measured as 8.4cm to 1 decimal place. Write down the lower bound and upper bound.</p> <p><math>8.35 \leq x &lt; 8.45</math></p> | <p>Find the total surface area of the cone.</p>  <p><math>98.2\text{cm}^2</math></p> |
| <p>Factorise fully</p> $x^2 - 64$ <p><math>(x - 8)(x + 8)</math></p>                                                                                                                                                       | <p>Find the arc length of the sector.</p>  <p><math>6.7\text{cm}</math></p>                                                                                                                                       | <p>Solve</p> $\frac{3x - 2}{4} = x - 5$ <p><math>x = 18</math></p>                                                                             | <p>Simplify:</p> $\frac{4a}{7} - \frac{a}{14}$ <p><math>\frac{a}{2}</math></p>                                                                                           |



# CCEA GCSE Maths Revision Mat

## M3



| <p>The line <math>2y+6x=14</math> is parallel to line <math>L</math>. Line <math>L</math> passes through the point <math>(-2,3)</math></p> <p>Find the equation of line <math>L</math>.</p> <p><math>y=-3x-3</math></p> | <p>Expand and simplify:</p> <p><math>(2x-4)(x+3)+4x</math></p> <p><math>2x^2+6x-12</math></p>                                                                                                                 | <p>Solve:</p> <p><math>x^2-7x+12=0</math></p> <p><math>x=3</math> or <math>x=4</math></p>                                                                                           | <p>A cylinder has a base radius of 5cm and a height of 40cm.</p> <p>The curved surface area of this cylinder is the same as the surface area of a sphere.</p> <p>What is the radius of the sphere.</p> <p><math>10\text{cm}</math></p>                                                                                                                                                                                                                                                                                                                                               |                  |           |                      |                 |   |     |                  |    |      |                  |    |      |                  |   |      |                  |   |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------|----------------------|-----------------|---|-----|------------------|----|------|------------------|----|------|------------------|---|------|------------------|---|------|
| <p>A kite is flying on a string 18m long. The string makes an angle of <math>52^\circ</math> with the ground.</p> <p>Calculate the height of the kite above the ground.</p> <p><math>14.2\text{ m}</math></p>           | <p>Simplify fully:</p> <p><math>\frac{x^2+7x}{x^2+3x-28}</math></p> <p><math>\frac{x}{x-4}</math></p>                                                                                                         | <p>Calculate the total surface area of the cylinder.</p>  <p><math>227.8\text{ cm}^2</math></p> | <p>Find the total surface area of the cone.</p>  <p><math>113.1\text{ cm}^2</math></p>                                                                                                                                                                                                                                                                                                                                                                                                           |                  |           |                      |                 |   |     |                  |    |      |                  |    |      |                  |   |      |                  |   |      |
| <p>Solve the equation:</p> <p><math>\frac{2x+3}{5}+\frac{x-1}{2}=10</math></p> <p><math>x=18</math></p>                                                                                                                 | <p>The diagram shows an equilateral triangle. Form and solve an equation to calculate the perimeter of the triangle.</p>  | <p>Simplify fully:</p> <p><math>\frac{a+4}{12}\div\frac{a^2+4a}{18}</math></p> <p><math>\frac{3}{2a}</math></p>                                                                     | <p>Complete the cumulative frequency table</p> <table><tr><th>Time <math>t</math> minutes</th><th>Frequency</th><th>Cumulative Frequency</th></tr><tr><td><math>0 &lt; t \leq 10</math></td><td>6</td><td><math>6</math></td></tr><tr><td><math>10 &lt; t \leq 20</math></td><td>12</td><td><math>18</math></td></tr><tr><td><math>20 &lt; t \leq 30</math></td><td>18</td><td><math>36</math></td></tr><tr><td><math>30 &lt; t \leq 40</math></td><td>9</td><td><math>45</math></td></tr><tr><td><math>40 &lt; t \leq 50</math></td><td>5</td><td><math>50</math></td></tr></table> | Time $t$ minutes | Frequency | Cumulative Frequency | $0 < t \leq 10$ | 6 | $6$ | $10 < t \leq 20$ | 12 | $18$ | $20 < t \leq 30$ | 18 | $36$ | $30 < t \leq 40$ | 9 | $45$ | $40 < t \leq 50$ | 5 | $50$ |
| Time $t$ minutes                                                                                                                                                                                                        | Frequency                                                                                                                                                                                                     | Cumulative Frequency                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |           |                      |                 |   |     |                  |    |      |                  |    |      |                  |   |      |                  |   |      |
| $0 < t \leq 10$                                                                                                                                                                                                         | 6                                                                                                                                                                                                             | $6$                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |           |                      |                 |   |     |                  |    |      |                  |    |      |                  |   |      |                  |   |      |
| $10 < t \leq 20$                                                                                                                                                                                                        | 12                                                                                                                                                                                                            | $18$                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |           |                      |                 |   |     |                  |    |      |                  |    |      |                  |   |      |                  |   |      |
| $20 < t \leq 30$                                                                                                                                                                                                        | 18                                                                                                                                                                                                            | $36$                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |           |                      |                 |   |     |                  |    |      |                  |    |      |                  |   |      |                  |   |      |
| $30 < t \leq 40$                                                                                                                                                                                                        | 9                                                                                                                                                                                                             | $45$                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |           |                      |                 |   |     |                  |    |      |                  |    |      |                  |   |      |                  |   |      |
| $40 < t \leq 50$                                                                                                                                                                                                        | 5                                                                                                                                                                                                             | $50$                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |           |                      |                 |   |     |                  |    |      |                  |    |      |                  |   |      |                  |   |      |