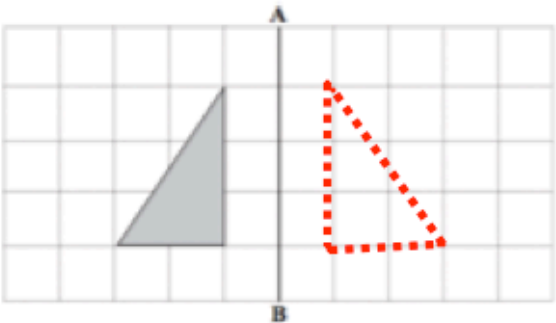



June 21st	5-a-day	Numeracy
	<p>Reflect the shaded triangle in the line.</p>	
<p>List the cube numbers between 10 and 100.</p> <p style="color: red; font-size: 2em;">27 64</p>		
 <p>What is the mathematical name for this triangle?</p> <p style="color: red; font-size: 1.5em;">equilateral triangle</p>	<p>What is the size of each angle?</p> <p style="color: red; font-size: 2em;">60°</p>	
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px;">0 1 9 6 2</div> <div style="border: 1px solid black; padding: 2px;">0 2 1 5 9</div> </div> <p style="text-align: center; margin-top: 5px;">January April</p> <p>How many units of gas were used?</p> <p style="color: red; font-size: 1.5em;"> $\begin{array}{r} 2159 \\ -1962 \\ \hline 197 \end{array}$ </p>	<p>If each unit costs 10p, what is the total cost?</p> <p style="color: red; font-size: 1.5em;"> $197 \times 10 = 1970 \text{ p}$ $£19.70$ </p>	
<p>Find the value of:</p> <p style="color: blue; font-size: 1.2em;"> $\frac{3w + 1}{10}$ </p> <p>When $w = 7$</p> <p style="color: red; font-size: 1.5em;"> $\frac{3 \times 7 + 1}{10}$ </p>	<p style="color: red; font-size: 1.5em;"> $= \frac{21 + 1}{10} = \frac{22}{10}$ </p> <p style="color: red; font-size: 1.5em; border: 1px solid red; padding: 5px; display: inline-block;">2.2</p>	

June 21	5-a-day	Foundation
<p>Find the highest common factor of 30 and 20</p> <p style="text-align: center; color: red; font-size: 2em;">10</p>		
	<p>Reflect P in the y-axis. Label the triangle A.</p>	
	<p>Translate P by the vector</p> <p style="font-size: 1.5em; color: blue;"> $\begin{pmatrix} 4 \\ -3 \end{pmatrix}$ 4 right 3 down </p> <p>Label the triangle B.</p>	
<p>Write 15 as a product of primes</p> <p style="text-align: center; color: red; font-size: 2em;"> 15 $\begin{matrix} \diagdown & \diagup \\ \textcircled{3} & \textcircled{5} \end{matrix}$ </p>		<p style="text-align: center; color: red; font-size: 2em;">$15 = 3 \times 5$</p>
<p>Find a number which can be written as the product of 3 different prime numbers</p> <p style="color: red; font-size: 1.5em;"> 30 42 66 165 78 and <u>others</u> </p>		<p style="color: red; font-size: 1.5em;"> $2 \times 3 \times 5 = 30$ $2 \times 3 \times 7 = 42$ $2 \times 3 \times 11 = 66$ etc </p>

June 21	5-a-day	Higher
<p>Write 73000 in standard form</p> 7.3×10^4		
<p>£400 is invested. The investment pays 10% every year.</p> <p>How much money will there be after 2 years?</p>	$400 \times 1.1 = 440$ $440 \times 1.1 = 484$ $£484$	
<p>Solve</p> $x^2 + 10x + 21 = 0$ $(x+7)(x+3) = 0$	$x = -7$ <p>or</p> $x = -3$	
<p>Solve:</p> $x + 2y = 3$ $x^2 + 3xy = 10$ $x = 3 - 2y$ $(3 - 2y)^2 + 3(3 - 2y)y = 10$	$9 - 6y - 6y + 4y^2 + 3y(3 - 2y) = 10$ $9 - 12y + 4y^2 + 9y - 6y^2 = 10$ $9 - 3y - 2y^2 = 10$ $0 = 2y^2 + 3y + 1$ $(2y + 1)(y + 1) = 0$ $y = -\frac{1}{2} \text{ or } y = -1$	$x = 4, y = -\frac{1}{2}$ <p>or</p> $x = 5, y = -1$
<p>Simplify $\sqrt{80}$</p> $\sqrt{16 \times 5}$ $4\sqrt{5}$	$x + 2y = 3$ $x - 1 = 3$ $x = 4$	<p>or</p> $x + 2y = 3$ $x - 2 = 3$ $x = 5$