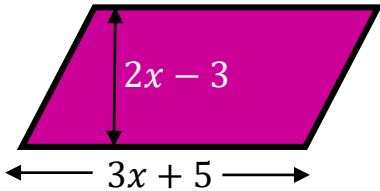




# Timester Challenge

## Expanding Quadratics



<p>Expand and simplify</p> <p>a) <math>(x + 4)(x + 5)</math></p> <p>b) <math>(x - 2)(x - 3)</math></p> <p><b>Bronze</b> ★</p>	<p>Expand and simplify</p> <p><math>(2x + 7)(x + 6)</math></p> <p><b>Silver</b> ★</p>	<p><math>y = x - 2</math></p> <p>Write an expression in terms of <math>x</math> for <math>y^2 + 2y - 2</math></p> <p>Give the answer in it's simplest form.</p> <p><b>Gold</b> ★</p>
<p>Expand and simplify</p> <p>a) <math>(x + 5)(x - 7)</math></p> <p>b) <math>(x - 3)(x + 9)</math></p> <p><b>Bronze</b> ★</p>	<p>Expand and simplify</p> <p><math>(3x - 5)(2x + 6)</math></p> <p><b>Silver</b> ★</p> <p>Expand and simplify</p> <p><math>(3x - 4)^2</math></p> <p><b>Silver</b> ★</p>	<p>Write an expression in it's simplest form for the area of the shape.</p>  <p><b>Gold</b> ★</p>



# Timester Challenge

## Expanding Quadratics

### Answers



<p>Expand and simplify</p> <p>a) <math>(x + 4)(x + 5)</math>  <math>= x^2 + 4x + 5x + 20</math>  <math>= x^2 + 9x + 20</math></p> <p>b) <math>(x - 2)(x - 3)</math>  <math>= x^2 - 2x - 3x + 6</math>  <math>= x^2 - 5x + 6</math></p> <p style="text-align: right;"><b>Bronze</b> ★</p>	<p>Expand and simplify</p> <p><math>(2x + 7)(x + 6)</math>  <math>= 2x^2 + 7x + 12x + 42</math>  <math>= 2x^2 + 19x + 42</math></p> <p style="text-align: right;"><b>Silver</b> ★</p>	<p><math>y = x - 2</math></p> <p>Write an expression in terms of <math>x</math> for <math>y^2 + 2y - 2</math></p> <p>Give the answer in it's simplest form.</p> <p><math>(x - 2)^2 + 2(x - 2) - 2</math>  <math>= (x - 2)(x - 2) + 2x - 4 - 2</math>  <math>= x^2 - 2x - 2x + 4 + 2x - 6</math>  <math>= x^2 - 2x - 2</math></p> <p style="text-align: right;"><b>Gold</b> ★</p>
<p>Expand and simplify</p> <p>a) <math>(x + 5)(x - 7)</math>  <math>= x^2 + 5x - 7x - 35</math>  <math>= x^2 - 2x - 35</math></p> <p>b) <math>(x - 3)(x + 9)</math>  <math>= x^2 - 3x + 9x - 27</math>  <math>= x^2 + 6x - 27</math></p> <p style="text-align: right;"><b>Bronze</b> ★</p>	<p>Expand and simplify</p> <p><math>(3x - 5)(2x + 6)</math>  <math>= 6x^2 - 10x + 18x - 30</math>  <math>= 6x^2 + 8x - 30</math></p> <p style="text-align: right;"><b>Silver</b> ★</p> <p>Expand and simplify</p> <p><math>(3x - 4)^2</math>  <math>= (3x - 4)(3x - 4)</math>  <math>= 9x^2 - 12x - 12x + 16</math>  <math>= 9x^2 - 24x + 16</math></p> <p style="text-align: right;"><b>Silver</b> ★</p>	<p>Write an expression in it's simplest form for the area of the shape.</p> <div style="text-align: center;"> </div> <p><math>(2x - 3)(3x + 5)</math>  <math>= 6x^2 - 9x + 10x - 15</math>  <math>= 6x^2 + x - 15</math></p> <p style="text-align: right;"><b>Gold</b> ★</p>