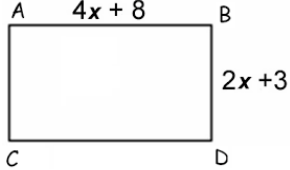
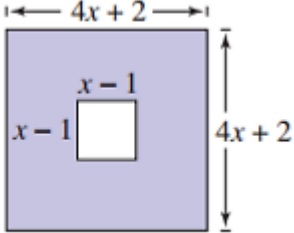
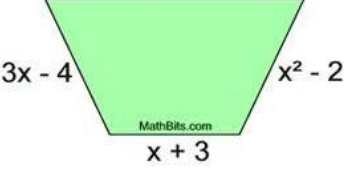
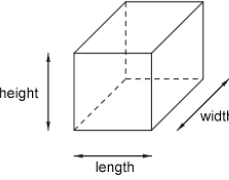


<p><b>1) Which of the following are polynomials?</b></p>	<p>a) <math>3x^3 + 4x^{-1}</math></p> <p>c) <math>4x^{\frac{1}{2}} + \frac{5}{x}</math></p>	<p>b) <math>2x + 3</math></p> <p>d) <math>12y^6 + 4y^3 - 9y^2</math></p>
<p><b>2) Classify the following polynomials</b></p>	<p>a) <math>-r^3 - 8r^2 + 8r - 7</math></p> <p>c) <math>-6p^2 + 4p - 5</math></p>	<p>b) 10</p> <p>d) <math>7n^2 + 8</math></p>
<p><b>3) Adding and Subtracting Polynomials</b></p>	<p>a) <math>(3x^3 - 6x) + (2x^3 + 3x)</math>  <math>(3x^3 - 6x) + (2x^3 + 3x)</math></p>	<p>b) <math>(2x^4 - 9) - (-x^4 + 4x + 3)</math></p>
<p><b>4) Multiplying Polynomials</b></p>	<p>a) <math>(2x^2 + 5x - 1)(x - 3)</math></p>	<p>b) <math>(6k + 5)(6k - 5)</math></p>
<p><b>5) Applications of Operations with Polynomials</b></p> <p><b>Perimeter:</b> add all the sides on the outside</p> <p><b>Area:</b> Use area formula for specific shape (multiply)</p>	<p>a) Find the perimeter and area.</p>  <p>c) Find the area of the shaded region</p> 	<p>b) Find the perimeter.</p>  <p>d) Find the volume of a cube with side length <math>(x - 4)</math>.</p> <p>Volume = <math>l \times w \times h</math></p> 
<p><b>6) Dividing Polynomials (Long division)</b></p> <ol style="list-style-type: none"> <li>1) Divide</li> <li>2) Multiply</li> <li>3) Subtract</li> <li>4) Bring Down</li> <li>5) Repeat</li> </ol> <p><b>7) Synthetic Division</b></p> <p>Note: Change the sign of the divisor (find the zero)</p>	<p style="text-align: center;"><u><b>Long Division</b></u></p> <p>a) <math>(2m^2 - 5m + 11) \div (m - 3)</math></p> <p>c) <math>(3r^3 - 6r + 8) \div (r - 2)</math></p>	<p style="text-align: center;"><u><b>Synthetic Division</b></u></p> <p>b) <math>(2m^2 - 5m + 11) \div (m - 3)</math></p> <p>d) <math>(3r^3 - 6r + 8) \div (r - 2)</math></p>

