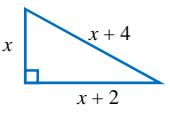
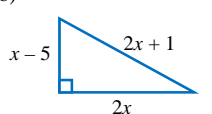
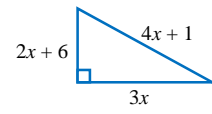
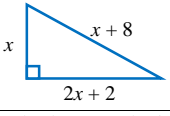
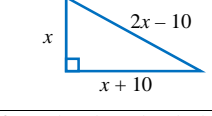
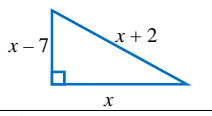
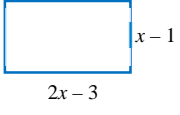
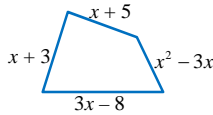
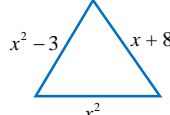
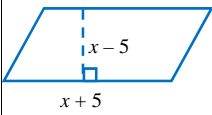


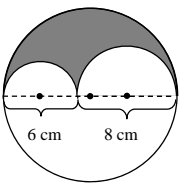
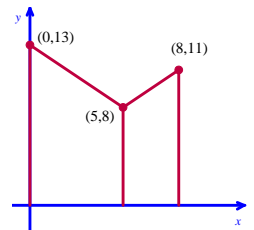
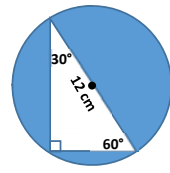
1. Use the Pythagorean Theorem to find the value of  $x$ , and the measure of each side. Show all work. Solve any quadratic equations by factoring. Identify any extraneous solutions. Confirm that your solution is a Pythagorean Triple.

a) 	b) 	c) 
d) 	e) 	f) 

2. Write and solve a quadratic equation for each. Show the algebraic work clearly.

a) The area of the rectangle is 28 square inches. Find its length and width. 	b) The perimeter of the quadrilateral is 120 centimeters. Find the lengths of the sides. 	c) The perimeter of the triangle is 41 feet. Find the lengths of its sides. 	d) There area of the parallelogram is 96 square meters. Find its base and height. 
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3. Area practice

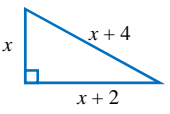
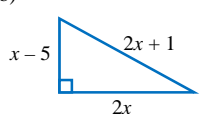
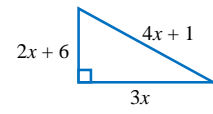
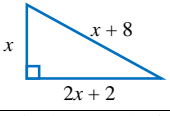
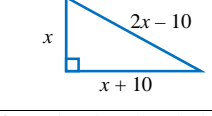
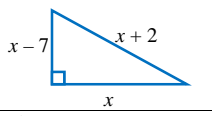
a) Find the shaded area. Give the exact answer. No decimals. 	b) Find the area enclosed by both trapezoids. 	c) Find the shaded area. Give the exact answer. No decimals. 
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4. Simplify the following expressions.

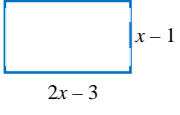
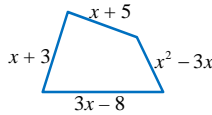
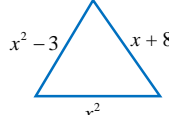
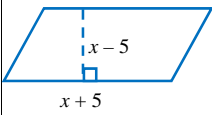
a) $\frac{3}{40}(16\pi)$	b) $\frac{3}{4}(5\pi) + \pi\left(\frac{3}{2}\right)^2$	c) $\frac{\pi}{2} + \frac{\pi}{6}$	d) $3\pi - \frac{5\pi}{3}$	e) $\frac{3}{5}(10\pi) - \pi$
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Answers: 1a-f and 2a-d:  $x = 4, x = 5, x = 5, x = 6, x = 7, x = 8, x = 10, x = 11, x = 12, x = 15, x = 30$   
3a-c and 4a-e:  $\frac{2\pi}{3}, \frac{6\pi}{5}, \frac{4\pi}{3}, 5\pi, 6\pi, 12\pi, 36\pi - 18\sqrt{3}, 45\pi - 7\sqrt{3}, 81$

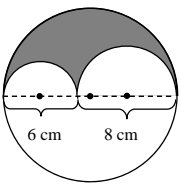
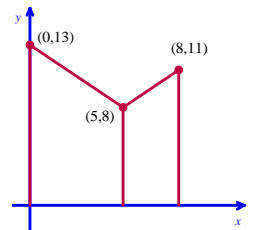
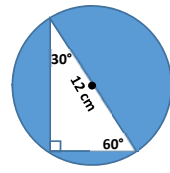
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a) 	b) 	c) 
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2. Write and solve a quadratic equation for each. Show the algebraic work clearly.

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3. Area practice

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4. Simplify the following expressions.

a) $\frac{3}{40}(16\pi)$	b) $\frac{3}{4}(5\pi) + \pi\left(\frac{3}{2}\right)^2$	c) $\frac{\pi}{2} + \frac{\pi}{6}$	d) $3\pi - \frac{5\pi}{3}$	e) $\frac{3}{5}(10\pi) - \pi$
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Answers: 1a-f and 2a-d:  $x = 4, x = 5, x = 5, x = 6, x = 7, x = 8, x = 10, x = 11, x = 12, x = 15, x = 30$   
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