Algebra 1	Unit 7: Quadratic Expressions	Practice
Day 4 – Applications of Polynomials Practice Assignment	Name:Block: _	
α.	b.	
2x - 4 x + 6	x + 10	

2. The measure of the perimeter of a triangle is 37x + 42. It is known that two of the sides of the triangle have measures of 14x + 16 and 10x + 20. Find the length of the third side.

3. A rectangle has a perimeter of $12y^2 - 2y + 18$ and has a width of $4y^2 - y + 6$. What is the length of the rectangle?

4. Write an expression for the perimeter and area of the following rectangle.



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5. Write an expression for the area of the triangle (A = $\frac{bh}{2}$ or A = $\frac{1}{2}bh$).



6. Find the area of the shaded region:



7. Find the area of the shaded region:



8. The polynomial $c(x) = x^2 + 4x - 10$ models the cost a company incurs from making an item at a price x. The polynomial $i(x) = 4x^2 - x + 20$ represents the income from selling the same item at a price x. Write a polynomial that expresses the profit from making and selling the item. (hint: profit = income - cost)