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$\qquad$ Block: $\qquad$

1. Find the perimeter of the following figures:
a.

b.

2. The measure of the perimeter of a triangle is $37 x+42$. It is known that two of the sides of the triangle have measures of $14 x+16$ and $10 x+20$. Find the length of the third side.
3. A rectangle has a perimeter of $12 y^{2}-2 y+18$ and has a width of $4 y^{2}-y+6$. What is the length of the rectangle?
4. Write an expression for the perimeter and area of the following rectangle.

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

6. Find the area of the shaded region:


## 5x-2

7. Find the area of the shaded region:

8. The polynomial $c(x)=x^{2}+4 x-10$ models the cost a company incurs from making an item at a price $x$. The polynomial $i(x)=4 x^{2}-x+20$ 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)
