

**3.3** 6. Use algebra tiles to factor  $12p + 18$ .

Model  $12p + 18$  as a rectangle.

Since \_\_\_\_\_ is the GCF of 12 and 18, make \_\_\_\_\_ equal rows.  
Sketch the tiles. Label the length and width.

The length of the rectangle is \_\_\_\_\_.

The width of the rectangle is \_\_\_\_\_.

So,  $12p + 18 =$  \_\_\_\_\_

7. Use division to factor each polynomial.

a)  $9x^2 - 12x$

Factor each term of the binomial.

$$9x^2 = \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad}$$

$$12x = \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad}$$

The GCF is  $\underline{\quad} \times \underline{\quad} = \underline{\quad}$ .

Divide each term of the binomial by \_\_\_\_\_.

$$\frac{9x^2 - 12x}{\underline{\quad}} = \underline{\quad} - \underline{\quad}$$

$$= \underline{\quad} - \underline{\quad}$$

$$\text{So, } 9x^2 - 12x = \underline{\quad}$$

b)  $-10m^2 - 15m + 5$

Factor each term of the trinomial.

$$10m^2 = \underline{\quad} \times \underline{\quad} \times \underline{\quad} \times \underline{\quad}$$

$$15m = \underline{\quad} \times \underline{\quad} \times \underline{\quad}$$

$$5 = \underline{\quad}$$

The GCF is \_\_\_\_\_.

Divide each term of the trinomial by \_\_\_\_\_.

$$\frac{-10m^2 - 15m + 5}{\underline{\quad}} = \underline{\quad} - \underline{\quad} + \underline{\quad}$$

$$= \underline{\quad}$$

$$\text{So, } -10m^2 - 15m + 5 = \underline{\quad}$$

Remove  $-1$  as a common factor.

$$\underline{\quad} = \underline{\quad} (\underline{\quad} + \underline{\quad} - \underline{\quad})$$

$$\text{So, } -10m^2 - 15m + 5 = \underline{\quad}$$