1. a) Write the binomial modelled by
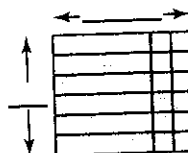these algebra tiles: _____

b) The length of the rectangle is _____.
The width of the rectangle is _____.
Factor the binomial: _____

2. Use algebra tiles to factor each binomial.

a) $8w + 12$

Since _____ is the GCF of 8 and 12, make _____ equal rows of tiles.
Sketch the tiles.
The length of the rectangle is _____.
The width of the rectangle is _____.
So, $8w + 12 =$ _____

b) $6x^2 + 15x$

Since _____ is the GCF of 6 and 15, make _____ equal rows of tiles.
Sketch the tiles.
The length of the rectangle is _____.
The width of the rectangle is _____.
So, $6x^2 + 15x =$ _____

3. Factor each binomial by dividing.

a) $-9z + 36$

Factor each term of the binomial.
$9z =$ _____ × _____ × _____
$36 =$ _____ × _____ × _____ × _____
The GCF is _____ × _____ = _____.
Divide each term of the binomial by _____.

$$\frac{-9z + 36}{\underline{\quad}} = -\frac{9z}{\underline{\quad}} + \frac{36}{\underline{\quad}}$$

$$= \underline{\quad} + \underline{\quad}$$

So, $-9z + 36 =$ _____

b) $25t^2 - 10t$

Factor each term of the binomial.
$25t^2 =$ _____ × _____ × _____ × _____
$10t =$ _____ × _____ × _____
The GCF is _____ × _____ = _____.

Divide each term of the binomial by _____.

$$\frac{25t^2 - 10t}{\underline{\quad}} = \frac{\underline{\quad}}{\underline{\quad}} - \frac{\underline{\quad}}{\underline{\quad}}$$

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

So, $25t^2 - 10t =$ _____