Check Your Understanding
Factoring – Completing the Square

Answer these problems, then check your answers using the key on the next page.

#1) Add a term to form a perfect trinomial and write as a binomial squared:

$$x^2+14x+\_\_ = (\_\_\_\_\_)^2$$

#2) Complete the square and write as a binomial squared:

$$9p^2-24p+\_\_ = (\_\_\_\_\_)^2$$

#3) Which of the following are perfect trinomials:

a) $x^2-20x+100$ b) $4b^2-12b+8$ c) $16m^2+40m+25$ d) $x^2+x+\frac{1}{4}$

Answers:

#1) $x^2+14x+\underline{49} = (\underline{x+7})^2$

#2) $9p^2-24p+\underline{16} = (\underline{3p-4})^2$

#3) *a) yes* $(x-10)^2$, *b) no,* *c) yes* $(4m+5)^2$, *d) yes* $\left(x-\frac{1}{2}\right)^2$