**1.** Expand, then simplify.

 **a)** $(x + 3)(x + 5)$

 **b)** $(n - 5)(n + 7)$

**2.** Use the distributive property to multiply, then simplify.

 **a)** $(x - 10)(x + 4) = x(\underline{\hspace{1.5cm}}) - 10(\underline{\hspace{1.5cm}})$
 $= x(\underline{\hspace{1cm}}) + x(\underline{\hspace{1cm}}) - 10(\underline{\hspace{1cm}}) - 10(\underline{\hspace{1cm}})$
 $= \underline{\hspace{1cm}} + \underline{\hspace{1cm}} - \underline{\hspace{1cm}} - \underline{\hspace{1cm}}$
 $= \underline{\hspace{2.5cm}}$

 **b)** $(n + 9)(n - 6) = n(\underline{\hspace{1.5cm}}) + 9(\underline{\hspace{1.5cm}})$
 $= n(\underline{\hspace{1cm}}) + n(\underline{\hspace{1cm}}) + 9(\underline{\hspace{1cm}}) + 9(\underline{\hspace{1cm}})$
 $= \underline{\hspace{1cm}} - \underline{\hspace{1cm}} + \underline{\hspace{1cm}} - \underline{\hspace{1cm}}$
 $= \underline{\hspace{2.5cm}}$

 **c)** $(h - 7)(h - 4) = \underline{\hspace{3.5cm}}$


 $= \underline{\hspace{2.5cm}}$

**3.** Factor each trinomial.

 **a)** $x^2 + 10x + 9$

 **b)** $x^2 - 13x + 12$

**c)** $n^2 - 8n - 20$

**d)** $c^2 + 7c - 18$

**3.5** **8.** **a)** Simplify $(c - 6)(c - 5)$

**b)** Simplify $(h - 4)(h + 7)$

**9.** **a)** Factor $x^2 + 9x + 8$

**b)** Factor $x^2 - 8x + 15$