

8.2 cont.

pg. 443 Ex 2 Try (or read) this example.

ex) pg. 444 Your Turn

$f$ : first integer     $s$ : second integer

①  $2f + 14 = s$     ②  $s + 1 = f^2$  Get rid of  $s$ .

$$2f + 14 + 1 = f^2$$

$$f = 5 \quad s = 24$$

$$f = -3 \quad s = 8$$

$$0 = f^2 - 2f - 15$$

$$0 = (f - 5)(f + 3)$$

$$f = 5 \quad f = -3$$

Now verify logically.

Read Ex 3, pg. 445-446, incl. solution.

Your Turn pg. 446

a) ①  $h = -4.9t^2 + 900$  ②  $h = -4t + 500$

$$-4.9t^2 + 900 = -4t + 500$$

$$0 = 4.9t^2 - 4t - 400$$

Use Q.F.

$$t = 9.45s \quad t = \cancel{-8.64}$$

b)  $h = -4.9(9.45)^2 + 900 = 462m$  since  $t \geq 0$

$$h = -4(9.45) + 500 = 462m \checkmark$$

Read Key Ideas pg. 451

pg. 452-456 #9-13 (apply)  
#19-21 (extend)  
#23-24 (connect)