

# Think Break #4 Answer

1.  $Q(X) = 4 + 15X - 7X^2$

1<sup>st</sup> derivative:  $dQ/dX = 15 - 14X$

2<sup>nd</sup> derivative:  $d^2Q/dX^2 = -14$

2.  $\pi(X) = 2(5 - X - 3X^2) - 8X - 15$

1<sup>st</sup> derivative:  $d\pi/dX = 2(-1 - 6X) - 8 = -10 - 12X$

2<sup>nd</sup> derivative:  $d^2\pi/dX^2 = -12$