Chapter 9 Review

p. 534 #9 (solve by factoring), 11 (solve by graphing)

p. 535 #14-18 (simplified radical form), #20-22 (simplified radical form), #23-25 – use completing the square and vertex form to solve.

p. 536 #27-29 (simplified radical form), #30-32 – find discriminant, # roots & tell whether vertex is above, below or on x-axis, #33

p.537 #1-4 (do NOT solve – tell which method is best and why), #9

Word Problem Practice:

1) The width of a photograph is 3 cm shorter than its length. The area is 304 square cm. Find the dimensions.

2) The height of a coin in the air t seconds after it is flipped can be modeled by the function $y = -16t^2 + 32t + 5$ where t and y are measured in feet. What is the maximum height that the coin reaches? Use completing the square to solve this problem.

3) A wall that measures 15 feet high and 20 feet long will have a window mounted directly in the middle so that there is a uniform border surrounding the window. If the area of the window is 84 square feet, what are dimensions of the window?

ALTERNATE ANSWERS

p.536:

#30 - discriminant = 0, 1 root, vertex on x-axis,

#31 - discriminant = -48, 0 roots, vertex above x-axis,

#32 - discriminant = 4, 2 roots, vertex above x-axis

word problems:

#1 - The photograph measures 16 cm by 19 cm

#2 - The vertex of the coin is at (1,21). The maximum height it reaches is 21ft.

#3 – The window measures 7 ft by 12 ft.