

← 1 2 3 4 5 6 7 8 9 10 →

4.1.37

Ex. Score: 0.9 of 1 pt

HW Score: 9% (0.9 of 10 pts)

2 of 10 complete

Determine the quadratic function of the form  $f(x) = a(x-h)^2 + k$  whose graph is given on the right.

$f(x) = \square$   
(Do not simplify.)

\*4.1 problem

$$f(x) = a(x-h)^2 + k$$

$$V: (-2, 8)$$

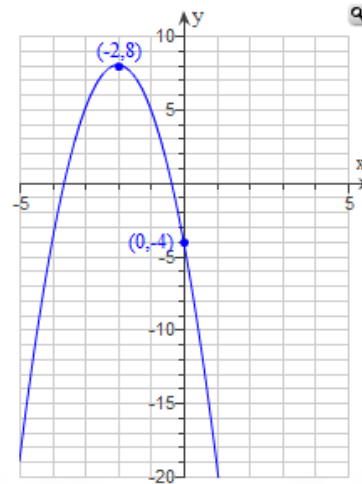
$h \quad k$

$$Pt: (0, -4)$$

$x \quad f(x)$

③ Plug in  $a$  in ①

$$f(x) = -3(x+2)^2 + 8$$



① Plug in  $(h, k) \rightarrow (-2, 8)$

$$f(x) = a(x+2)^2 + 8$$

② Plug in  $(x, y)$  or  $(x, f(x)) \rightarrow (0, -4)$

$$-4 = a(0+2)^2 + 8 \quad \text{and solve for } a.$$

$$-4 = a(2)^2 + 8$$

$$-4 = 4a + 8$$

$$\begin{array}{r} -4 \\ -8 \\ \hline -12 = 4a \\ \frac{-12}{4} = \frac{4a}{4} \end{array} \quad a = -3$$

Enter your answer in the answer box, then click Check Answer.

?

All parts showing

Clear All

Check Answer

Save

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