

Mth 112 Weds. 10-3-12 CLASS NOTES

(52)

pg 406

$$P = -X^2 + 100X - 1000$$

$$P(X) = -X^2 + 100X - 1000$$

P = profit
 X = Number
of
units

How many units (value of X) for max profit

$$AOS \Rightarrow \frac{-b}{2a} = \frac{-100}{-2} = 50$$

Alternate

$$X = 50 \text{ units}$$

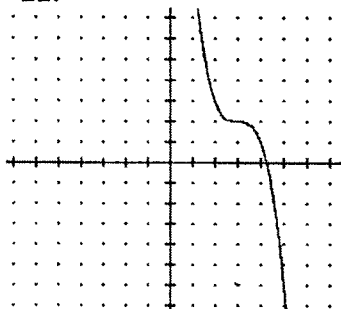
$$P = -X^2 + 100X - 1000$$

$$= - \left(X^2 - 100X + \{50^2\} \right) - 1000 + \{2500\}$$

$$P = -1(X - 50)^2 + 1500$$

IX. Fill in the blanks correctly for each graph below.

22.



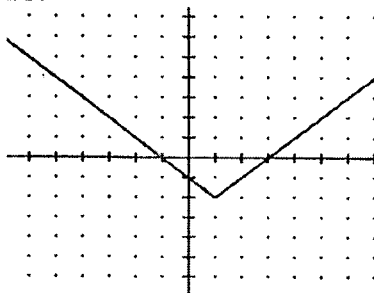
Function $y = x^3$

Middle, or Starting Point _____

Reflected or Not Reflected _____

Equation for this graph

23.



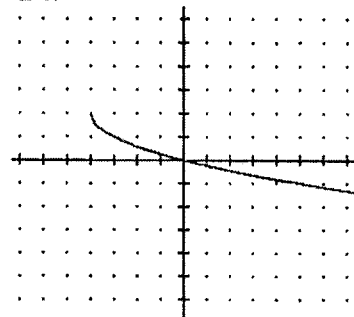
Function $y = |x|$

Middle, or Starting Point _____

Reflected or Not Reflected _____

Equation for this graph

24.



Function $y = \sqrt{x}$

Middle, or Starting Point _____

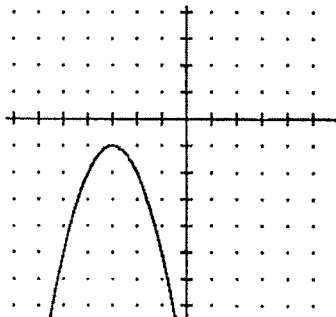
Reflected or Not Reflected _____

Equation for this graph

PARENT FUNCTIONS!

GRADED EXAM Review

25.



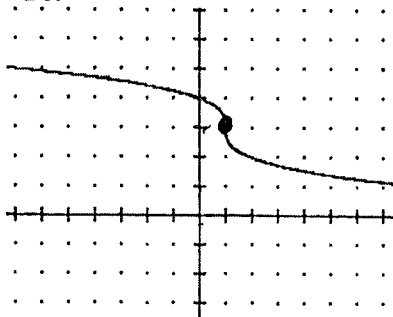
Function $y = x^2$

Middle, or Starting Point _____

Reflected or Not Reflected _____

Equation for this graph

26.



Function $y = \sqrt[3]{x}$

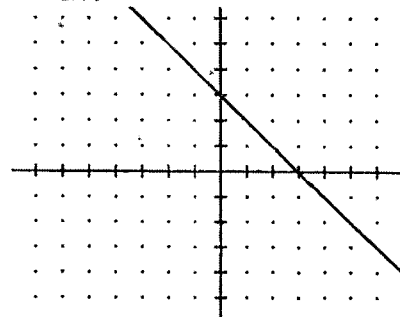
Middle, or Starting Point (1, 3)

Reflected or Not Reflected yes

Equation for this graph

$$y = -\sqrt[3]{x-1} + 3$$

27.



Function $y = x$

Middle, or Starting Point _____

Reflected or Not Reflected _____

Equation for this graph