

Bell Ringer:

Add characteristics of parabolas - a, c, etc.

$a > 0$ open up
 $a < 0$ open down

c y-intercept
 $c = 0$ ORIGIN
 $c > 0$ above x-axis
 $c < 0$ below x-axis



$b^2 - 4ac$ Roots
 $b^2 - 4ac < 0$ no root
 $b^2 - 4ac = 0$ 1 root
 $b^2 - 4ac > 0$ 2 roots
 $-\frac{b}{2a}$ axis of symmetry (vertex)

$-\frac{b}{2a} = 0$ y axis
 $-\frac{b}{2a} > 0$ right y-axis
 $-\frac{b}{2a} < 0$ left y-axis

Agenda

Review Answers
Review Questions

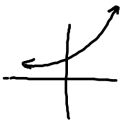
b

a) 3^x

D: \mathbb{R}

R: $y > 0$

$x \rightarrow \infty, y \rightarrow \infty$
 $x \rightarrow -\infty, y \rightarrow 0$



b) $\log x$

D: $x > 0$

R: \mathbb{R}

$x \rightarrow \infty, y \rightarrow \infty$



d) $y = \sqrt{2-x}$

D: $2-x \geq 0$

R: $y \geq 0$

$x \rightarrow -\infty, y \rightarrow \infty$



log

$$\log_7 x = 4 \log_7 2 + (\log_7 3 - \log_7 6)$$

$$\log_7 x = \log_7 16 + \log_7 \frac{1}{2}$$

$$\log_7 x = \log_7 8$$

$$11. \quad f(x) = \frac{1}{x+3} \quad g(x) = \sqrt{x} \quad h(x) = x^2$$

$$f(g(x)) = f(\sqrt{x}) = \frac{1}{\sqrt{x}+3}$$

$$f(h(x)) = f(x^2) = \frac{1}{x^2+3}$$

$$h(g(x)) = h(\sqrt{x}) = (\sqrt{x})^2$$

$$12. \quad g(x) = \sqrt{x}$$

$$x \geq 0 \\ y \geq 0$$

$$y = \sqrt{x}$$

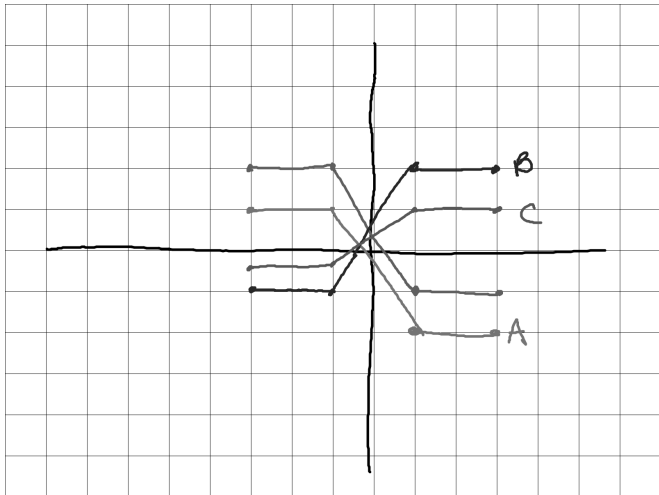
$$x = \sqrt{y}$$

$$x^2 = y$$

$$g^{-1}(x) = x^2$$

$$D: x \geq 0$$

$$R: y \geq 0$$



Closure

No 1 may 2016

What do you need to do to prepare for the exam?

quadratic formula
characteristics
parabola

Be prepared to share.

answer sheet
ask for help
old test/quiz
notecard
sleep
breakfast
old notes ✓
attitude
pencil
confident
on time
calculator
erasers
website

pt-slope form
transform
exponent rules
piecewise