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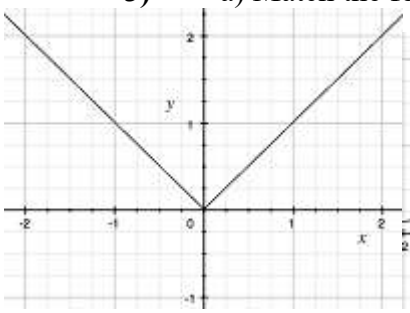
1) Use the equation y = 2x + 3
   a) Write a parallel line through the point (4,7)

   b) Write a perpendicular line through the point (8,3)

2) Solve the system of equations
2x + y = 9
3x – 2y = 10

3) a) Match the following graphs with their parent equation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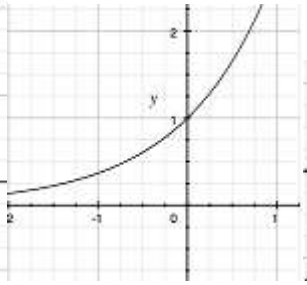
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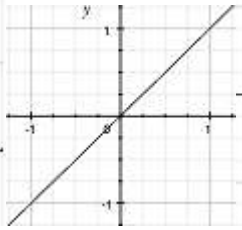
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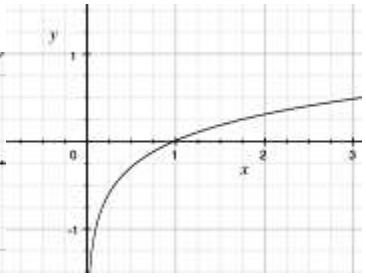
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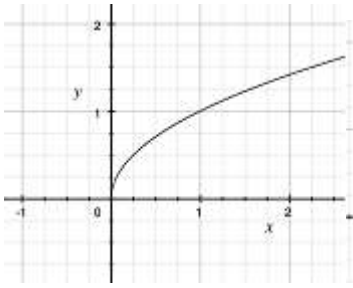
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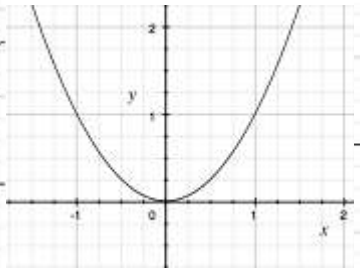
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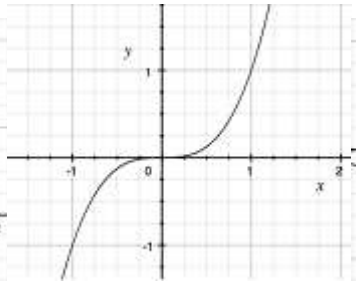
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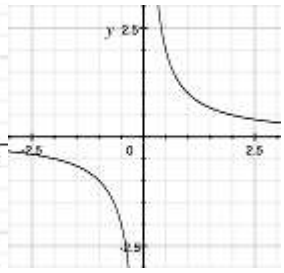
h

y = x _____ y = x^2 _____ y = x^3_____ y = log x_____

y = $\frac{1}{x}$ _____ y = $\sqrt{x}$ _____ y =e^x _____ y = |x| _____

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4) Give the coordinates for the vertex, then find the zeroes of the function

a) $f(x) = x^2 + 3x + 2$

b) $f(x) = 3x^2 + 18x + 15$

Solve the following with the quadratic formula

$y = -x^2 + 3x - 10$

Solve the following by completing the square

$y = 2x^2 - 4x$

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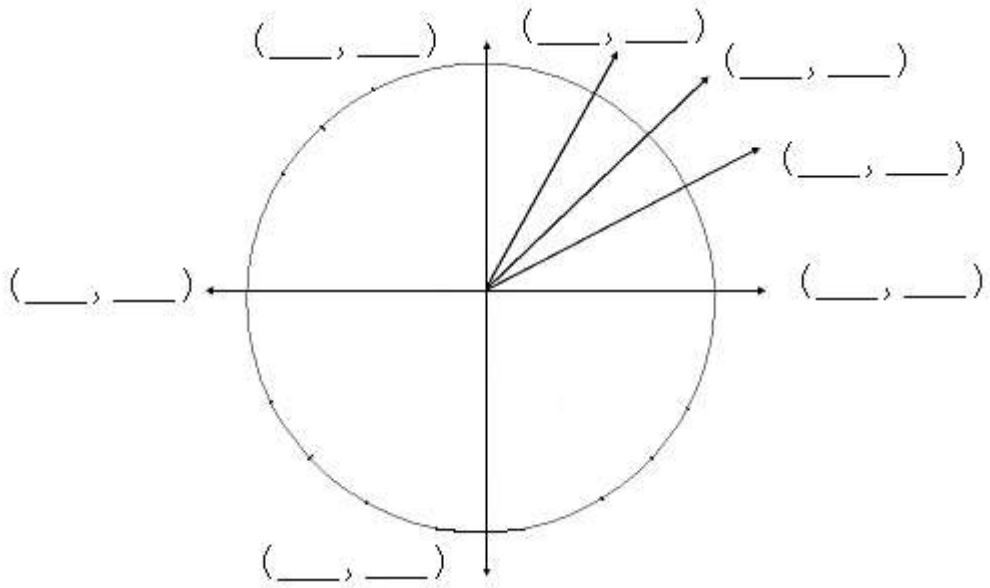
5) a) Convert to radians

140^{o}

b) Convert to degrees

$\frac{3\pi}{2}$

c) Fill in values for the unit circle



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6) **A)** Convert to log

$2^x - 5 = y$

B) Convert to standard form

$\ln (x - 5) = y$

C) Change to base 10

$\log_2 7$

D) Simplify

$\log x^2 + \log y - 3 \log z$

E) $\log 2 \approx 0.301$ $\log 8 \approx 0.903$

$\log 16 =$

$\log 4 =$