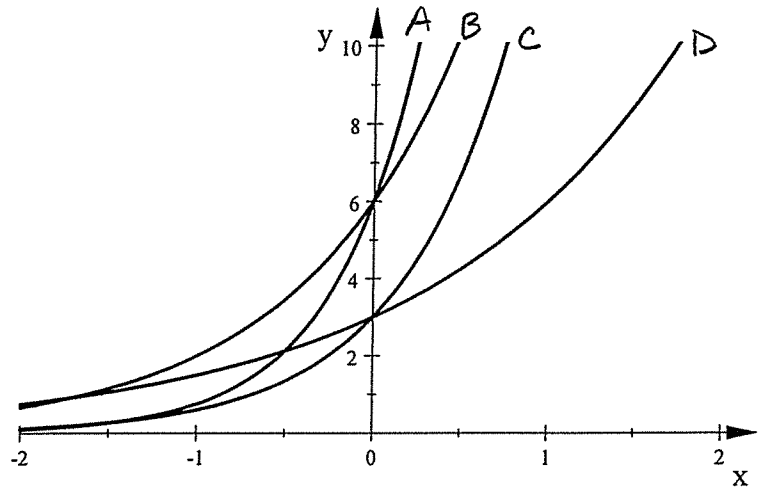
Algebra 1 Bellwork Thursday, March 12, 2015

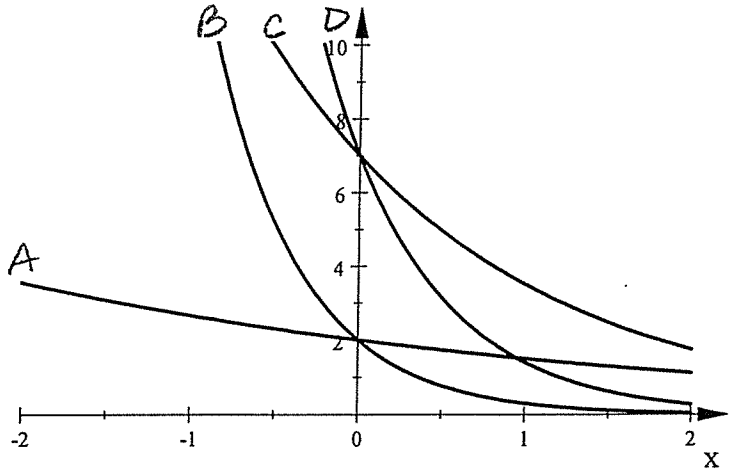
Match each exponential equation to its graph.

1. $y = 3(5)^x$ 2. $y = 6(8)^x$ 3. $y = 3(2)^x$ 4. $y = 6(3)^x$



Match each exponential equation to its graph.

5. $y = 7(0.5)^x$ 6. $y = 2(0.15)^x$ 7. $y = 2(0.75)^x$ 8. $y = 7(0.2)^x$



9. Evaluate for $P = -9$ $Q = -6$ $R = 12$ Give answer as a fraction in reduced form.

$3P^{-2}Q^2R^{-1}$

10. Simplify. Give answer without exponents that are zero or negative. Reduce any fractions.

$$\left(\frac{4^{-2}m^4n^{-6}p}{2^{-3}k^{-4}m^{-2}n^{-9}p^5}\right)^{-2}(8k^5m^{-7}n^3p^4)$$

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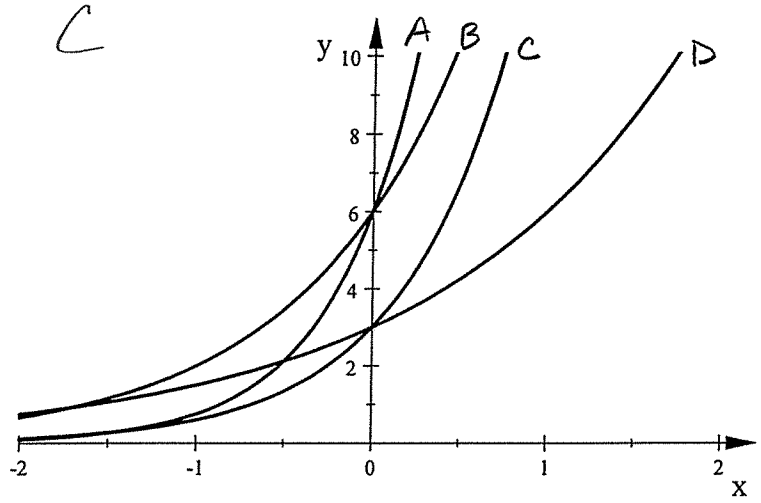
ANSWERS

Match each exponential equation to its graph.

1. $y = 3(5)^x$ C
2. $y = 6(8)^x$ A
3. $y = 3(2)^x$ D
4. $y = 6(3)^x$ B



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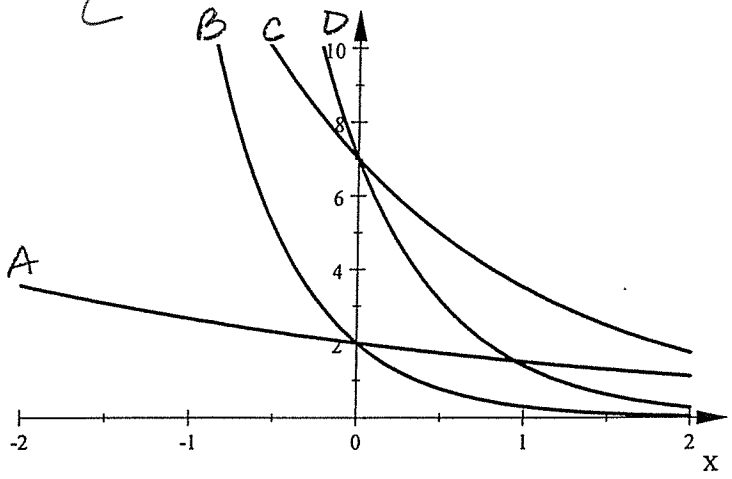

9. Evaluate for $P = -9$ $Q = -6$ $R = 12$ Give answer as a fraction in reduced form.

$3P^{-2}Q^2R^{-1}$

$$\frac{3Q^2}{P^2R} = \frac{3(-6)^2}{(-9)^2(12)} = \frac{108}{972} = \boxed{\frac{1}{9}}$$

10. Simplify. Give answer without exponents that are zero or negative. Reduce any fractions.

$$\left(\frac{4^{-2}m^4n^{-6}p}{2^{-3}k^{-4}m^{-2}n^{-9}p^5}\right)^{-2}(8k^5m^{-7}n^3p^4)$$

$$\frac{4^4 m^{-8} n^{12} p^{-2}}{2^6 k^8 m^4 n^{18} p^{-10}}$$

$$\left(\frac{256\,p^8}{64\,k^8m^{12}n^6}\right)\left(8k^5m^{-7}n^3p^4\right) = \boxed{\frac{32p^{12}}{k^3m^{19}n^3}}$$