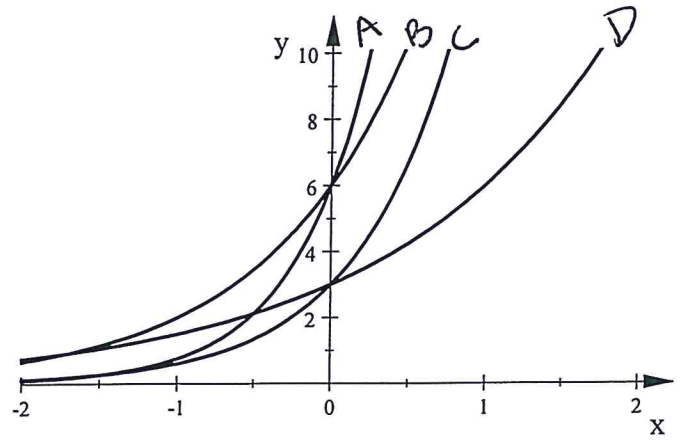
Algebra 1 Bellwork Tuesday, April 12, 2016

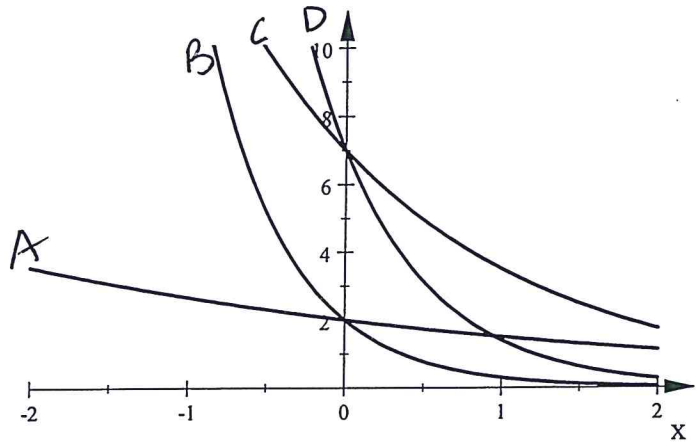
Match each exponential equation to its graph.

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. The value of a house last year was $175,400. This year the value of the house decreased by 6% compared to last year. What is the value of the house this year?

10. The price on a car this year is $25,760. The price will increase 4.5% next year. Find the price of the car next year.

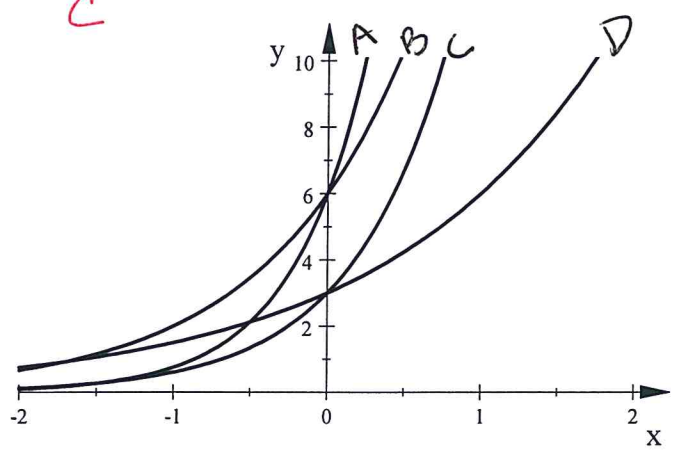
11. Simplify. Give answer without exponents that are zero or negative. Reduce any fractions.

$$\left(\frac{6^{-1}m^4n^{-6}}{k^{-4}m^{-2}n^{-9}p^5}\right)^{-2}(81k^5m^{-7}n^3p^4)$$

Algebra 1 Bellwork Tuesday, April 12, 2016 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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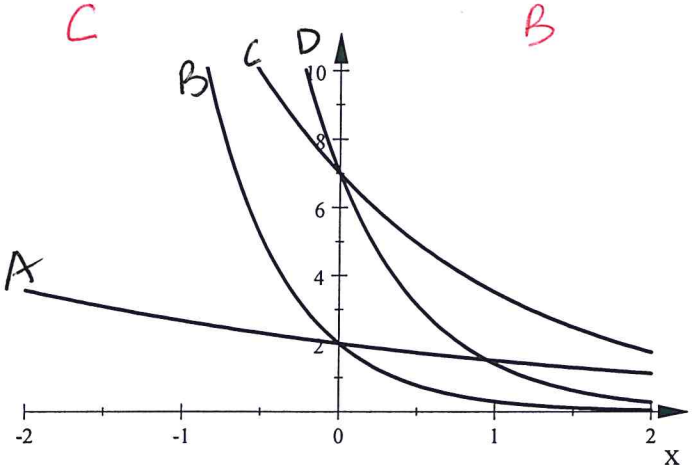

9. The value of a house last year was \$175,400. This year the value of the house decreased by 6% compared to last year. What is the value of the house this year?

100 − 6 = 94 %

(175,400)(.94) = \$164,876

10. The price on a car this year is \$25,760. The price will increase 4.5% next year. Find the price of the car next year.

100 + 4.5 = 104.5 %

(25,760)(1.045) = \$26,919.20

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

$$\left(\frac{6^{-1}m^4n^{-6}}{k^{-4}m^{-2}n^{-9}p^5}\right)^{-2}(81k^5m^{-7}n^3p^4)$$

$$\left(\frac{m^6n^3k^4}{6p^5}\right)^{-2} \rightarrow \left(\frac{36p^{10}}{m^{12}n^6k^8}\right)\left(81k^5m^{-7}n^3p^4\right)$$

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

$$= \frac{2916\,p^{14}}{k^3m^{19}n^3}$$