

Bellwork Alg 2B Thursday, September 7, 2017

1. A line in the xy-plane passes through the origin and has a slope of $\frac{1}{7}$. Which of the following points lies on the line?

- A) (0,7) B) (1,7) C) (7,7) D) (14,2) E) None of these

Simplify each. Write your answers so that no exponents are zero or negative.

2. $\frac{3^{-2}w^5z^{-6}}{6v^0w^{-4}x^7}$

3. $\left(\frac{5c^{-4}d^5}{15c^{-2}d^{-7}}\right)^{-2}$

4. $(3j^{-2}k^4)^3(5j^3k^{-7})^2$

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EQ OF LINE: $y = \frac{1}{7}x$

The only point that makes this equation true is (14,2)

Simplify each. Write your answers so that no exponents are zero or negative.

$$2. \frac{3^{-2}w^5z^{-6}}{6v^0w^{-4}x^7} = \frac{w^5w^4}{3^2 \cdot 6x^7z^6} = \boxed{\frac{w^9}{54x^7z^6}}$$

There are many ways to arrive at the correct answer. My work is just one of them

$$3. \left(\frac{5c^{-4}d^5}{15c^{-2}d^{-7}} \right)^{-2} = \left(\frac{d^{12}}{3c^2} \right)^{-2} = \left(\frac{3c^2}{d^{12}} \right)^2 = \boxed{\frac{9c^4}{d^{24}}}$$

$$4. (3j^{-2}k^4)^3(5j^3k^{-7})^2$$

$$(27j^{-6}k^{12})(25j^6k^{-14}) = 675j^0k^{-2} = \boxed{\frac{675}{k^2}}$$