

1. Circle all expressions below that are equivalent to 7^{-2} . Show or explain how you determined this.

$\frac{7^2}{1} = \frac{1}{7^{-2}}$ $(7)^2$ $(-7)^2$ $-(7)^2$ (-49) $7^2 = 7 \cdot 7 = 49$
 $\frac{1}{49}$ $\frac{1}{7^2}$ $(-\frac{1}{49})$ $(\frac{1}{7^{-2}})$ $\frac{1}{7^{-2}} = 7 \cdot 7 = 49$
 X X X X X

2. Circle all expressions below that are equivalent to $\frac{1}{2^{-5}}$. Show or explain how you determined this.

$(-\frac{1}{10})$ $2^5 = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 = 32$ -32 32
 (2^5) -2^5 (-10)
 $2^5 = \frac{2^5}{1} = \frac{1}{2^{-5}}$ X

3. Briefly explain the difference between $-b$ and b^{-1} .

$-b$ is just by itself with no exponents and b^{-1} has a negative exponent, but the b is positive.