

8.EE.1 Snapshot Assessment

Score $\frac{\square}{10} = \text{_____}\%$

Name: _____ Class: _____

Date: _____

1. Which exponential expression is equal to $2^{-5} \cdot 2^8$?
(2 points)

a. $\frac{2^2}{2^{-1}}$

b. $(2^3)^{-1}$

c. $\frac{2^{-2}}{2^{-1}}$

d. $(2^{-1})^3$

2. Simplify.
(2 points)

$$5^{-8} \times 5^4$$

a. $\frac{1}{5^4}$

b. $\frac{1}{5^{32}}$

c. -5^2

d. -5^{12}

3. What is the value of n in the equation shown below?
(2 points)

$$2^2 \times 2^n = (2^4)^3$$

a. 5

b. 6

c. 10

d. 12

4. Which expression is equivalent to $2^2 \cdot \frac{2}{2^4}$?
(2 points)

a. 2^{-2}

b. 2^{-1}

c. 2^6

d. 2^7

5. Henrietta incorrectly simplified the expression $\left(\frac{1}{2}\right)^2 \times \frac{1}{2} \times \left(\frac{1}{2}\right)^3$, as shown below.
(2-Point Holistic Rubric)

$$\left(\frac{1}{2}\right)^2 \times \frac{1}{2} \times \left(\frac{1}{2}\right)^3 = \left(\frac{1}{8}\right)^6 = \frac{1}{262,144}$$

Describe the mistake that Henrietta made.

Answer

Correctly simplify the expression.

$$\left(\frac{1}{2}\right)^2 \times \frac{1}{2} \times \left(\frac{1}{2}\right)^3$$

Answer _____