

NAME: \_\_\_\_\_

1. 060020a, P.I. A2.A.9

What is the value of  $3^{-2}$ ?

[A] 9      [B]  $-\frac{1}{9}$       [C]  $\frac{1}{9}$       [D] -9

2. 080522a, P.I. A2.A.9

What is the value of  $2^{-3}$ ?

[A] -8      [B]  $\frac{1}{6}$       [C] -6      [D]  $\frac{1}{8}$

3. 010511a, P.I. A2.A.9

Which expression is equivalent to  $x^{-4}$ ?

[A]  $-4x$       [B]  $\frac{1}{x^4}$       [C] 0      [D]  $x^4$

4. 010723a, P.I. A2.A.9

What is the value of  $3^0 + 3^{-2}$ ?

[A]  $1\frac{1}{9}$       [B] 6      [C] 0      [D]  $\frac{1}{9}$

5. 010413a, P.I. A2.A.9

The expression  $8^{-4} \cdot 8^6$  is equivalent to

[A]  $8^{-24}$       [B]  $8^{10}$       [C]  $8^{-2}$       [D]  $8^2$

6. 080730a, P.I. A2.A.9

The expression  $(\frac{3}{4})^2 \bullet (\frac{1}{4})^{-2}$  is equivalent to

[A]  $\frac{9}{256}$       [B] 3      [C] 9      [D]  $\frac{9}{16}$

7. 080119a, P.I. A2.A.9

Which expression is equivalent to  $x^{-1} \cdot y^2$ ?

[A]  $\frac{y^2}{x}$       [B]  $xy^{-2}$       [C]  $\frac{x}{y^2}$       [D]  $xy^2$

8. 060826a, P.I. A2.A.9

The expression  $(3c)^{-2}$  is equivalent to

[A]  $\frac{1}{9c^2}$       [B]  $\frac{1}{3c^2}$       [C]  $-6c^2$       [D]  $\frac{3}{c^2}$

9. 010824b, P.I. A2.A.8

Simplify the expression  $(m^6)^{-\frac{2}{3}}$  and write your answer using a positive exponent.

10. 080423b

Solve for  $x$ :  $x^{-3} = \frac{27}{64}$

[1] C \_\_\_\_\_

[2] D \_\_\_\_\_

[3] B \_\_\_\_\_

[4] A \_\_\_\_\_

[5] D \_\_\_\_\_

[6] C \_\_\_\_\_

[7] A \_\_\_\_\_

[8] A \_\_\_\_\_

[2]  $\frac{1}{m^4}$  or  $(\frac{1}{m})^4$ , and appropriate work is shown.

[1] Appropriate work is shown, but one computational error is made,

or [1] Appropriate work is shown, but one conceptual error is made.

or [1] Appropriate work is shown, but the answer is expressed with a negative exponent, such as  $m^{-4}$ .

[1]  $\frac{1}{m^4}$  or  $(\frac{1}{m})^4$ , but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[9] incorrect procedure.

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[2]  $\frac{4}{3}$  or  $1\frac{1}{3}$  or  $1.\bar{3}$ , and appropriate work is shown.

[1] Appropriate work is shown, but one computational error is made.

or [1] Appropriate work is shown, but one conceptual error is made.

or [1]  $\frac{4}{3}$  or  $1\frac{1}{3}$  or  $1.\bar{3}$ , but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[10] incorrect procedure.

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