

No calculator

Multiple Choice

1. $(\frac{1}{2})^{-2} + 3^0$

What is the value of the expression above?

A) $\frac{3}{4}$

B) $\frac{5}{4}$

C) 4

D) 5

2. $(a^3)^3 \cdot a^{-9}$

Which of the following expressions is equivalent to the expression above for all $a \neq 0$?

A) 0

B) 1

C) a^3

D) a^{18}

3. $(2y^2z^{10})^5$

Which of the following expressions is equivalent to the expression above?

A) $10y^{32}z^{100,000}$

B) $10y^{10}z^{50}$

C) $32y^{32}z^{100,000}$

D) $32y^{10}z^{50}$

Free Response

4. $-(5c)^0 + 7^1 - 2^2$

If $c \neq 0$, what is the value of the expression above?

Answer:

Calculator OK

5. $b^3 \cdot (b^4)^2 = b^x$

What is x equal to?

A) 5

B) 11

C) 24

D) 8

6. $(2b^{-5})^3$

Which of the following is equivalent to the above expression for all $b \neq 0$?

A) $\frac{2}{b^{15}}$

B) $\frac{8}{b^{15}}$

C) $\frac{1}{2b^{15}}$

D) $\frac{1}{8b^{15}}$