

Independent Practice

Expressions and Operations

A.10

Read and solve.

1. If $a = 0$, $(a^{-2})(a^2) = ?$

- A. $-\frac{1}{2}$
- B. 1
- C. 0
- D. 2

2. The sun is about 1.5×10^8 kilometers from Earth. If light travels about 3×10^5 kilometers per second, about how many seconds does it take light from the sun to reach Earth?

- A. 5
- B. 50
- C. 500
- D. 5,000

3. Which is equivalent to $(x^3)^4$?

- A. x
- B. x^7
- C. x^{12}
- D. $4x^3$

4. The population of Asia is about 3.4×10^9 . The population of Africa is about 7×10^8 . About how many more people live in Asia than live in Africa?

- A. 27,000,000
- B. 270,000,000
- C. 360,000,000
- D. 2,700,000,000

5. Which is equivalent to $\frac{b^6}{b^2}$?

- A. $\frac{1}{b^3}$
- B. b^3
- C. b^4
- D. b^8

6. Which is equivalent to $(6x^4y^5)^2$?

- A. $6x^4y^{10}$
- B. $6x^6y^7$
- C. $12x^8y^{10}$
- D. $36x^8y^{10}$

7. Which is equivalent to $(6x^5)(3x^4)$?

- A. $2x$
- B. $9x^9$
- C. $18x^9$
- D. $18x^{20}$