

Write the letter for the correct answer in the blank at the right of each question.

- Use divisibility rules to determine which number is a factor of 126.
A. 6 B. 10 C. 4 D. 5 1. _____
- Determine which expression is not a monomial.
A. $-16xyz$ B. $7(x + y)$ C. 12 D. u 2. _____
- Write $(y)(y)(y)(y)(y)$ using exponents.
A. $5 + y$ B. $5y$ C. 5^y D. y^5 3. _____
- Evaluate $3m^2$ if $m = 5$.
A. 21 B. 30 C. 75 D. 225 4. _____
- Write the prime factorization of 36.
A. $2 \cdot 2 \cdot 9$ B. $2 \cdot 2 \cdot 2 \cdot 2$ C. $6 \cdot 6$ D. $2 \cdot 2 \cdot 3 \cdot 3$ 5. _____
- Factor $20x^2y$ completely.
A. $2 \cdot 2 \cdot 5 \cdot x \cdot x \cdot y$ B. $2 \cdot 25x^2y$ 6. _____
C. $4 \cdot 5 \cdot x \cdot x \cdot y$ D. $2 \cdot 10 \cdot x \cdot x \cdot y$
- Find the GCF of $14x$ and $35x^2$.
A. $490x$ B. $7x$ C. $490x^2$ D. $14x^3$ 7. _____
- Factor $5 + 10y$.
A. $5y(1 + 2)$ B. $5(1 + 10y)$ C. $5(1 + 2y)$ D. $5y(1 + 2y)$ 8. _____

For Questions 9 and 10, write each fraction in simplest form.

- $\frac{35}{77}$
A. $\frac{5}{11}$ B. $\frac{1}{2}$ C. $\frac{14}{33}$ D. $\frac{1}{3}$ 9. _____
- $\frac{20ab^2}{50ab}$
A. $\frac{2ab}{5}$ B. $\frac{2b}{5a}$ C. $\frac{2ab^2}{5ab}$ D. $\frac{2b}{5}$ 10. _____
- Twenty centimeters is what part of a meter?
A. $\frac{1}{5}$ B. $\frac{1}{50}$ C. $\frac{1}{10}$ D. $\frac{4}{9}$ 11. _____

4 Chapter 4 Test, Form 2A (continued)

Find each product.

12. $8^4 \cdot 8^4$
 A. 64^4 B. 8^8 C. 8^{16} D. 64^8 12. _____

13. $4x^2 \cdot 5x^4$
 A. $9x^6$ B. $9x^8$ C. $20x^6$ D. $20x^8$ 13. _____

For Questions 14 and 15, find each quotient.

14. $\frac{m^5}{m}$
 A. m^4 B. 5 C. m^6 D. 1^5 14. _____

15. $\frac{4^6}{4^2}$
 A. 1^4 B. 4^3 C. 4^4 D. 4^8 15. _____

16. Write $\frac{1}{5^6}$ as an expression using a negative exponent.
 A. -5^{-6} B. 5^{-6} C. 6^{-5} D. -6 16. _____

For Questions 17 and 18, evaluate each expression if $a = -2$ and $b = 3$.

17. b^{-3}
 A. $\frac{1}{27}$ B. -9 C. $-\frac{1}{27}$ D. 27 17. _____

18. 2^a
 A. $-\frac{1}{2}$ B. $\frac{1}{4}$ C. $-\frac{1}{4}$ D. 4 18. _____

19. A red blood cell is about 7.5×10^{-4} centimeter long. Express this number in standard form.
 A. 0.0075 B. 0.07500 C. 7500 D. 0.00075 19. _____

20. Choose the number that is greater than 2.7×10^4 .
 A. 26,000 B. 1.4×10^5 C. 3.1×10^{-6} D. 2.5×10^4 20. _____

Bonus Order the planets in the table at the right from least to greatest diameter.

Planet	Diameter (mi)
Venus	7.52×10^3
Uranus	3.18×10^4
Neptune	3.08×10^4
Earth	7.93×10^3

B: _____