

**A.A.12: Division of Powers 1: Multiply and divide monomial expressions with a common base, using the properties of exponents. Note: Use integral exponents only**

- 1 What is half of  $2^6$ ?  
1)  $1^3$  2)  $1^6$  3)  $2^3$  4)  $2^5$
- 2 The quotient of  $-\frac{15x^8}{5x^2}$ ,  $x \neq 0$ , is  
1)  $-3x^4$  2)  $-10x^4$  3)  $-3x^6$  4)  $-10x^6$
- 3 The expression  $\frac{-32x^8}{4x^2}$ ,  $x \neq 0$ , is equivalent to  
1)  $8x^4$  2)  $8x^6$  3)  $-8x^4$  4)  $-8x^6$
- 4 When  $-9x^5$  is divided by  $-3x^3$ ,  $x \neq 0$ , the quotient is  
1)  $-3x^2$  2)  $3x^2$  3)  $-27x^{15}$  4)  $27x^8$
- 5 Which expression represents  $\frac{(2x^3)(8x^5)}{4x^6}$  in simplest form?  
1)  $x^2$  2)  $x^9$  3)  $4x^2$  4)  $4x^9$
- 6 The expression  $\frac{12w^9y^3}{-3w^3y^3}$  is equivalent to  
1)  $-4w^6$  2)  $-4w^3y$  3)  $9w^6$  4)  $9w^3y$
- 7 Which expression represents  $\frac{27x^{18}y^5}{9x^6y}$  in simplest form?  
1)  $3x^{12}y^4$  2)  $3x^3y^5$  3)  $18x^{12}y^4$  4)  $18x^3y^5$
- 8 Which expression represents  $\frac{-14a^2c^8}{7a^3c^2}$  in simplest form?  
1)  $-2ac^4$  2)  $-2ac^6$  3)  $\frac{-2c^4}{a}$  4)  $\frac{-2c^6}{a}$
- 9 The expression  $\frac{5x^6y^2}{x^8y}$  is equivalent to  
1)  $5x^2y$  2)  $\frac{5y}{x^2}$  3)  $5x^{14}y^3$  4)  $\frac{5y^3}{x^{14}}$
- 10 The expression  $\frac{4x^2y^3}{2xy^4}$  is equivalent to  
1)  $\frac{2x}{y}$  2)  $\frac{2y}{x}$  3)  $2xy$  4)  $-2xy$
- 11 Simplify:  $\frac{27k^5m^8}{(4k^3)(9m^2)}$

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1 ANS: 4

$$\frac{2^6}{2^1} = 2^5$$

REF: 060813ia

2 ANS: 3 REF: 060005a

3 ANS: 4 REF: 060707a

4 ANS: 2 REF: 080405a

5 ANS: 3

$$\frac{(2x^3)(8x^5)}{4x^6} = \frac{16x^8}{4x^6} = 4x^2$$

REF: fall0703ia

6 ANS: 1 REF: 061103ia

7 ANS: 1 REF: 060903ia

8 ANS: 4 REF: 061018ia

9 ANS: 2 REF: 080526a

10 ANS: 1 REF: 010817a

11 ANS:

$$\frac{3k^2m^6}{4}$$

REF: 010932ia