

3.2.22 Dividing Polynomials & Exponent Laws 3

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Simplify.

1) $\frac{8^3 \cdot (-5 - 5) - 2(-9)}{0 + 2(-2 \cdot 7) + 3 \cdot 9}$ 1) _____

- A) -622 B) 622 C) -5102 D) 5102

2) $\frac{-19 + 5^2 - (-24)}{-27 - 9 + 39}$ 2) _____

- A) -10 B) 10 C) -11 D) 11

3) $\frac{6^2 + (13 - 3)^2}{32 \div 4 - (6 + 1)}$ 3) _____

- A) 136 B) 40 C) 196 D) 1542

Write a numerical expression for the phrase and simplify it.

4) The quotient of 20 and -5 decreased by -5 4) _____

- A) $\frac{20}{5} - 5; -1$ B) $\frac{20}{5} - (-5); 9$ C) $\frac{20}{-5} - 5; -9$ D) $\frac{20}{-5} - (-5); 1$

5) The quotient of -24 and -8 5) _____

- A) $\frac{-24}{-8}; \frac{1}{3}$ B) $\frac{-24}{-8}; 3$ C) $\frac{-8}{-24}; \frac{1}{3}$ D) $(-8)(-24); 192$

Evaluate.

6) $|8(2 - 7)| - |5 \cdot 2^2 - 28|$ 6) _____

- A) 160 B) 32 C) -32 D) 48

7) $-2^2(6 - 2^2)$ 7) _____

- A) -20 B) -8 C) 40 D) 8

8) $2(5^2 + 20) \div (-9)$ 8) _____

- A) $-\frac{430}{9}$ B) $\frac{430}{9}$ C) 10 D) -10

9) $|6 - 10 \cdot 2| \cdot |4 - 6^2 + 2|$ 9) _____

- A) 240 B) -240 C) 420 D) -420

10) $4 + 2(-4)$ 10) _____

- A) 4 B) -4 C) -24 D) 24

11) $-90 \div (6^2 - 6)$ 11) _____

- A) -3 B) $\frac{19}{2}$ C) $-\frac{19}{2}$ D) 3

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Solve the problem.

- 12) During a recent price war among car dealerships, 34 cars at one dealership were sold at a profit of \$555 per car and 51 cars were sold at a loss of \$575 per car. Find the net profit/loss for this car dealership. 12) _____
 A) \$48,195 profit B) \$48,195 loss C) \$10,455 loss D) \$10,455 profit

- 13) Connor recently sold some of his stock. He made a profit of \$2 per share on 19 shares, made a profit of \$8 per share on 5 shares, and had a loss of \$5 per share on 6 shares. What was his net profit/loss on the sale of stock. 13) _____
 A) \$48 loss B) \$108 profit C) \$48 profit D) \$108 loss

Solve.

- 14) When a low-pressure system moved through an area, the barometer dropped 15 millibars in three hours. Using a signed number, find the average drop per hour. 14) _____
 A) +5 millibars per hour B) -45 millibars per hour
 C) +45 millibars per hour D) -5 millibars per hour

- 15) On an expressway off-ramp, the road slopes downward five feet per 124 feet. Using a signed number, find the rate at which the road drops per foot. 15) _____
 A) $-\frac{124}{5}$ ft per foot B) -5 ft per foot
 C) $-\frac{1}{124}$ ft per foot D) $-\frac{5}{124}$ ft per foot

Evaluate the expression.

- 16) $2x^2yz$ for $x = -1$, $y = -3$, and $z = -1$ 16) _____
 A) -6 B) -3 C) 6 D) 3

- 17) cx^3 for $c = 5$ and $x = -4$ 17) _____
 A) 80 B) -320 C) -60 D) -59

- 18) $10x^2 + 5y$ for $x = 3$ and $y = 2$ 18) _____
 A) 910 B) 280 C) 55 D) 100

Evaluate the expression, given $x = -2$, $y = 3$, and $a = -4$.

- 19) $5a^3x - y^2(9y - 8x^2)$ 19) _____
 A) 595 B) -109 C) 685 D) -595

- 20) $(-2a)(5x + 6y)$ 20) _____
 A) 24 B) 224 C) 64 D) -64

- 21) $-x^2 - (5y^2 - 7x)$ 21) _____
 A) -55 B) -27 C) -63 D) 55

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Find the quotient.

22) $\frac{-60}{5}$

A) 12

B) -12

C) $-\frac{1}{12}$

D) -22

22) _____

23) $\frac{0}{-42}$

A) 1

B) 42

C) 0

D) undefined

23) _____

24) $\frac{-6}{0}$

A) 1

B) Undefined

C) 6

D) 0

24) _____

Answer Key

Testname: 3.2.22 DIVIDING POLY EXPONENT RULES 3

- 1) D
- 2) B
- 3) A
- 4) D
- 5) B
- 6) B
- 7) B
- 8) D
- 9) C
- 10) B
- 11) A
- 12) C
- 13) C
- 14) D
- 15) D
- 16) C
- 17) B
- 18) D
- 19) C
- 20) C
- 21) C
- 22) B
- 23) C
- 24) B