

3 Seeds/Prairie Hills Junior High 7th Grade Packet

1.a. $3^6 \times 3^{-14} =$

- A. 3^{20} B. 3^{14} C. 3^{-8} D. 3^8

2. $|8 - 3| - |5 - 12| =$

- A. -2 B. 2 C. 0 D. 5

3.a. 20000000000 in scientific notation is

- A. 2×10^{-11} B. 2×3^{11} C. 2×10^{12} D. 2×10^{11}

b. 4×10^{-6} in standard notation is

- A. 0.004 B. 0.000042 C. 0.000004 D. 0.00004

4.a. Which number is irrational?

- A. $\sqrt{49}$ B. $1/3$ C. $\sqrt{6}$ D. 0

5.a. Which property is illustrated below?

$$x \times (2 + 5) = x \times 2 + x \times 5$$

- A. commutative property of addition B. Distributive property of multiplication C. Distributive property of addition D. Multiplicative inverse

b. $(122 + x) \times 1 = 122 + x$ is an example of

- A. Identity property of addition B. Distributive property of multiplication C. Identity property of multiplication D. Identity property of multiplication

6. You buy a computer for 500 USD. There is a 20% discount and a 6% sales tax. How much money to you pay?

7. If $x = 2$ and $y = 5$, the value of $x^2y + 4x =$

A. 28 B. -5 C. 20 D. 62

8. Graph $(2, 6)$ and $(-1, 0)$ on the coordinate system and find the slope using $m = \text{rise} / \text{run}$

9. Throw a coin twice.

a. Show all different outcomes

b. What is the probability of getting heads twice? _____

10. Find the inequality below and then solve it _____

$$x + 5 = 2$$

$$2 + 0 = 2$$

$$3x + 2 > 11$$

$$4x + 9$$

11. David buys a computer that cost 288 dollars. The manager decided to deduct one-fourth ($\frac{1}{4}$) of the sales price

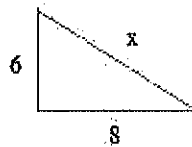
Which expression is an approximation of what David pays after the deduction?

A. 300×0.25 B. 300×0.025 C. $300 - 300 \times 0.25$ D. $300 + 300 \times 0.25$

12. Simplify $(2^5 \times 4^{10} \times 6^5) / (2^3 \times 4^{10} \times 6^6)$

A. $4/8$ B. $1/3$ C. 1 D. $2/3$

13. Find the length of x _____



14. Put the following equation in slope-intercept form. Then identify the slope and the y-intercept

$$5 + y = 4x$$

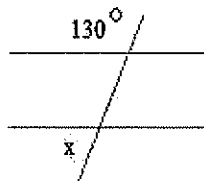
Slope-intercept form

Slope

y-intercept

15. x% of 120 is 36. What is x? _____

16. What is the measure of angle x? _____



17. A box has the following dimensions

length = 6 cm, width = 8 cm, and height = 3 cm

The volume and surface area are :

A. $V = 144 \text{ cm}^3$ and $SA = 180 \text{ cm}^2$ B. $V = 144 \text{ cm}^3$ and $SA = 110 \text{ cm}^2$ C. $V = 120 \text{ cm}^3$ and $SA = 180 \text{ cm}^2$
D. $V = 140 \text{ cm}^3$ and $SA = 180 \text{ cm}^2$

18. Solve for x.

$$-4x + 5 = 29$$

19. If your car can take you 85 miles away with 5 gallons of gas. How many gallons do you need to go 2035 miles away?

20. The sum of two consecutive even numbers is 42. What are the two numbers? (Hint: Let the numbers be $2n$ and $2n + 2$)