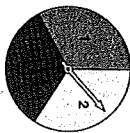


1. ⁽²¹⁾ Which is the better buy: 3 lbs of tomatoes for \$2.85 or 5 lbs for \$4.65?

2. ⁽²²⁾ Mary wants to buy a bike for \$290. She already has \$110. If her job pays \$15 per hour, how many hours will she have to work to earn the rest of the money?

3. ⁽²³⁾ The spinner below is spun twice. Make a tree diagram to show all possible outcomes. What is the probability of spinning 2 both times?



4. ^(inv. 2) Describe the shape of the graph that represents the following situation: A ball is thrown up into the air, then falls to the ground. The graph relates time to the ball's distance from the earth.

Simplify problems 5–6.

5. ⁽²⁴⁾ $\frac{x^3}{y^3}$

6. ⁽¹⁰⁾ $-5.76 - (-1.61) + 0.97 + (-4.26)$

7. ⁽⁸⁾ Mrs. Quinn is buying square tiles to cover her kitchen floor. The floor measures 10 feet by 15 feet. Each side of a tile is 2.5 inches. If Mrs. Quinn buys 3450 tiles, are there enough tiles to cover the floor?

8. ⁽¹²⁾ Identify the property illustrated:
 $(4 \cdot 11) \cdot 9 = (11 \cdot 4) \cdot 9$.

9. ⁽¹⁷⁾ Write $6 \cdot x$ in words in two different ways.

10. ⁽²⁰⁾ Graph the equation $y = -x$ using a table. Decide whether the graph represents a function and whether it is linear or nonlinear.

11. ⁽²⁴⁾ The first truck in a convoy will carry 12 tons of dirt while each additional truck will carry 8 tons of dirt. Write a rule to model the situation. Then use the rule to find how many tons of dirt can be carried by 7 trucks. Let n represent the number of trucks and t represent the tons of dirt.

12. ⁽²⁰⁾ Graph the ordered pair $(-2, 3)$ on a coordinate plane.

13. ⁽²⁶⁾ Find the x - and y -intercepts for $2x + 3y = 18$.

14. ⁽²⁴⁾ 0.27 of 45 is what number?

15. ⁽²¹⁾ Solve $\frac{3}{4}x = 6$.

Solve problems 16 and 17. Justify each step.

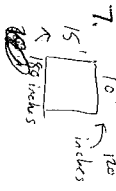
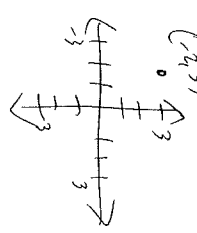
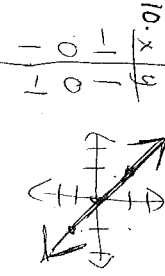
16. ⁽²⁸⁾ $3b - 8 = 7b - 2 - 4b$

17. ⁽²⁶⁾ $2a + 4(3a + 2) = 50$

18. ⁽¹⁹⁾ Estimate the value $\sqrt{77}$ to the nearest integer.

19. ⁽¹⁶⁾ Evaluate $p(3p - 2q) - pq$ for $p = \frac{1}{2}$ and $q = \frac{1}{4}$.

20. ⁽²⁹⁾ Solve for n : $3n + 2m - 6 = 4m + n$.

<p>1. $2.85 \div 3 = 0.95$ per lb $44.65 \div 5 = 8.93$ per lb 44.65 for 5 lbs.</p>	<p>6. $-5.76 - (-1.61) + 97 + (-4.26)$ $-5.76 + 1.61 + 97 + (-4.26)$ $-4.15 + 97 + (-4.26)$ $-3.18 + (-4.26)$ -7.44</p>	<p>11. $F = 12 + 8(n-1)$ Rule $F = 12 + 8(7-1)$ $12 + 48 = 60$ tons</p>	<p>16. $3b - 8 = 7b - 2 - 4b$ $3b - 8 = 3b - 2$ $-8 = -2$ $\neq 6$</p>
<p>2. $\frac{290}{-110} = 180 \div 15 = 12$ hrs</p>	<p>7.  Area of floor = $180 \times 120 = 21,600 \text{ in}^2$ Area of tile = $2.5 \times 2.5 = 6.25 \text{ in}^2$ $21,600 \div 6.25 = 3456$ tiles needed No, she needs 6 more</p>	<p>12.  $(-2, 3)$</p>	<p>17. $2a + 4(3a + 2) = 50$ $2a + 12a + 8 = 50$ $14a = 42$ $14a \div 14 = 42 \div 14 = 3$</p>
<p>3. $1 < 2 < 3$ $2 < 2 < 3$ $3 < 2 < 3$ $\frac{1}{9}$</p>	<p>8. Commutative Property of Multiplication</p>	<p>13. $2x + 3y = 18$ $2(0) + 3y = 18$ $0 + 3y = 18$ $3y = 18$ $y = 6$ $2x + 3(6) = 18$ $2x + 18 = 18$ $2x + 0 = 18$ $2x = 18$ $x = 9$ $x + y = 9 + 6 = 15$</p>	<p>18. $\sqrt{77} = 8.77$ ≈ 9</p>
<p>4. Slowly rises, reaches a maximum then slowly falls back to its starting point</p>	<p>9. 6 times X the product of 6 and X.</p>	<p>14. $27 \times 45 = 12.15$</p>	<p>19. $P(3p - 2q) - pq$ $\frac{1}{2}(3 \cdot \frac{1}{2} - 2 \cdot \frac{1}{4}) - \frac{1}{2} \cdot \frac{1}{4}$ $\frac{1}{2}(\frac{3}{2} - \frac{1}{2}) - \frac{1}{8}$ $\frac{1}{2}(\frac{2}{2}) - \frac{1}{8}$ $\frac{1}{2} - \frac{1}{8} = \frac{4}{8} - \frac{1}{8} = \frac{3}{8}$</p>
<p>5. $\frac{x^{-3}}{y^3} = \frac{1}{x^3 y^3}$</p>	<p>10.  Linear Function</p>	<p>15. $\frac{3}{4}x = 6$ $6 \div \frac{3}{4} = \frac{6 \times 4}{3} = \frac{24}{3} = 8$</p>	<p>20. $3n + 2m - 6 = 4m + 6$ $3n + 2m - 6 = 4m + 6$ $3n + 2m - 6 - 2m = 4m + 6 - 2m$ $3n - 6 = 2m + 6$ $3n - 6 - 6 = 2m + 6 - 6$ $3n - 12 = 2m$ $\frac{3n - 12}{3} = \frac{2m}{3}$ $n - 4 = \frac{2m}{3}$</p>