

1. Factor. $2x^2 - 18x + 36$

[1] _____

2. Factor: $20x^2 + 22x - 12$

[2] _____

3. Factor. $x^2 - 5x - 24$

[3] _____

4. Solve the system by the elimination method: $2N_Q - 2N_D = -14$

$$N_Q + 2N_D = 5$$

[4] _____

5. Solve the system of equations by substitution.

$$N_Q + 2N_D = -4$$

$$-N_Q + N_D = -5$$

[5] _____

6. Jasmine rolls a fair die five times and each time she rolls a six. What is the probability that on her next roll she will roll a four?

[6] _____

7. A bag contains 4 purple marbles and 5 orange marbles. A marble is drawn and dropped back into the bag. Another marble is drawn and dropped back into the bag. Both marbles were purple. If another marble is drawn, what is the probability that it is orange?

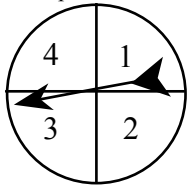
[7] _____

8. Solve the system by the elimination method: $2x + y = 8$

$$3x - y = 7$$

[8] _____

9. The spinner shown is spun 3 times. What is the probability that it will stop on 2, 4 and 3 in that order?



[9] _____

10. Simplify. Write the answer as a simple fraction with all exponents positive. $\frac{\frac{3}{-} + \frac{c}{-}}{\frac{c}{\frac{2}{-}} \frac{d}{-}}$

[10] _____

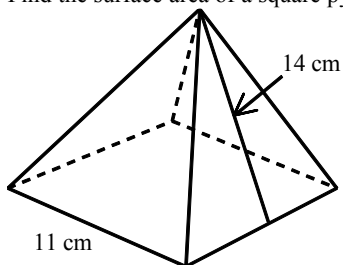
11. Simplify. Write the answer as a simple fraction with all exponents positive. $\frac{a^{-2}x^2y^2 - 3a^3}{3 - \frac{a^{-3}b^2}{x}}$

[11] _____

12. Simplify: $-2\sqrt{3} - 3\sqrt{300} + 3\sqrt{48}$

[12] _____

13. Find the surface area of a square pyramid if the length of the base is 11 cm and the slant height is 14 cm.



[13] _____