

level : 2

Practice 12
Equations

1. The weights of newborn babies in a hospital are normally distributed with a mean of 2.9 kg and a standard deviation of 0.3kg. In which range do approximately 68% of the baby weights fall?

(A) 2.6 - 3.2 (C) 2.4 - 3.5
 (B) 2.9 - 3.6 (D) 2.6 - 3.9

2. The heights of adult women in a town are normally distributed with a mean of 165 cm and a standard deviation of 5 cm. In which range do approximately 68% of the women's heights fall?

(A) 160 - 170 (C) 175 - 180
 (B) 173 - 178 (D) 180 - 185

3. Layla is designing a rectangular pool. The length of the pool is 3 meters more than twice the width of the pool. The perimeter of the pool is 42 meters. What is the width of the pool, in meters?

(A) 4.5 (C) 8
 (B) 6 (D) 10

4. Jake and Matt play a series of tennis matches. The probability that Jake wins a match against Matt is $\frac{4}{7}$. What is the probability that Jake wins exactly 3 out of the next 6 matches against Matt? Round to the nearest tenth

(A) 0.2 (C) 0.4
 (B) 0.3 (D) 0.5

5. Find the sum of all the even numbers between 0 and 50.

(A) 640 (C) 650
 (B) 645 (D) 680

6. In the arithmetic sequence 8, 15, 22, 29, ..., find the 11th term.

(A) 76 (C) 78
 (B) 80 (D) 83

7. In the geometric sequence 4, 12, 36, 108, ..., find the 8th term.

(A) 8760 (C) 8756
 (B) 8766 (D) 8748

8. Find the sum of the first 5 terms of the geometric sequence 2, 6, 18, 54, ...

(A) 239 (C) 241
 (B) 240 (D) 242