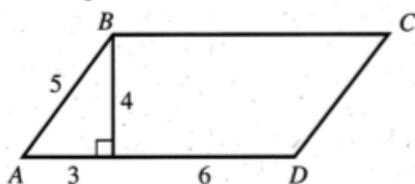


32. For all pairs of real numbers M and V where $M = 3V + 6$, $V = ?$

- F. $\frac{M}{3} - 6$
- G. $\frac{M}{3} + 6$
- H. $3M - 6$
- J. $\frac{M-6}{3}$
- K. $\frac{M+6}{3}$

33. Parallelogram $ABCD$, with dimensions in inches, is shown in the diagram below. What is the area of the parallelogram, in square inches?



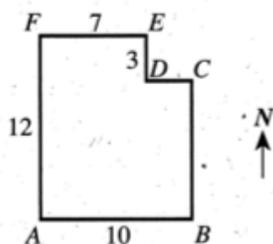
- A. 18
- B. 36
- C. 39
- D. 45
- E. 72

34. If $a = b + 2$, then $(b - a)^4 = ?$

- F. -16
- G. -8
- H. 1
- J. 8
- K. 16

35. A park has the shape and dimensions in blocks given below. A water fountain is located halfway between point B and point D . Which of the following is the location of the water fountain from point A ?

(Note: The park's borders run east-west or north-south.)



- A. $3\frac{1}{2}$ blocks east and 6 blocks north
- B. 5 blocks east and $4\frac{1}{2}$ blocks north
- C. 5 blocks east and 6 blocks north
- D. $8\frac{1}{2}$ blocks east and $4\frac{1}{2}$ blocks north
- E. 9 blocks east and $7\frac{1}{2}$ blocks north

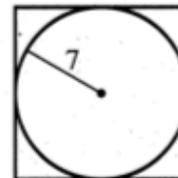
36. The larger of two numbers exceeds twice the smaller number by 8. The sum of twice the larger and 3 times the smaller number is 65. If x is the smaller number, which equation below determines the correct value of x ?

- F. $3(2x + 8) + 2x = 65$
- G. $3(2x - 8) + 2x = 65$
- H. $(4x + 8) + 3x = 65$
- J. $2(2x + 8) + 3x = 65$
- K. $2(2x - 8) + 3x = 65$

37. Members of the fire department lean a 30-foot ladder against a building. The side of the building is perpendicular to the level ground so that the base of the ladder is 10 feet away from the base of the building. To the nearest foot, how far up the building does the ladder reach?

- A. 10
- B. 20
- C. 28
- D. 31
- E. 40

38. A square is circumscribed about a circle of 7-foot radius, as shown below. What is the area of the square, in square feet?

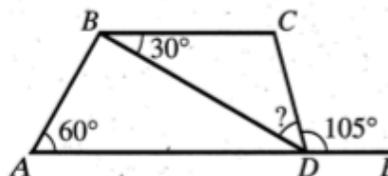


- F. 49
- G. 56
- H. 98
- J. 49π
- K. 196

39. The ratio of the side lengths for a triangle is exactly 12:14:15. In a second triangle similar to the first, the shortest side is 8 inches long. To the nearest tenth of an inch, what is the length of the longest side of the second triangle?

- A. 11.0
- B. 10.0
- C. 9.3
- D. 6.4
- E. Cannot be determined from the given information

40. In the figure below, $ABCD$ is a trapezoid, E lies on \overleftrightarrow{AD} , and angle measures are as marked. What is the measure of $\angle BDC$?



- F. 15°
- G. 25°
- H. 30°
- J. 35°
- K. 45°