

51. What is the value of the
expression $x^2 + 2x + 1$ for $x = 2$?

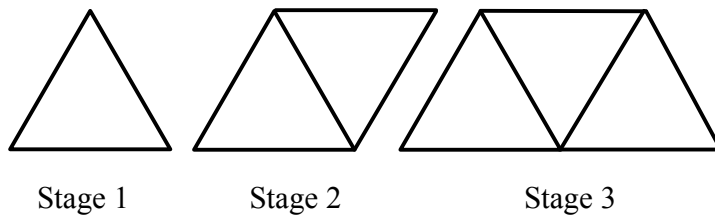
Express your answer in
simplest form.

Answer: 4

52. Sarah's bowling score was 40 points more than Greg's, and the average of their two scores was 102. What was Sarah's score?

Answer: 122 (points)

53. This pattern is made from toothpicks. If the pattern is continued by adding two toothpicks to the previous stage, how many toothpicks are used to create the figure for the 15th stage?



Answer: 31 (toothpicks)

54. How many cubic feet of wood are needed to build a solid door 7 feet high, 3 feet wide and 2 inches thick? Express your answer as a decimal to the nearest tenth.

Answer: 3.5 (ft³)

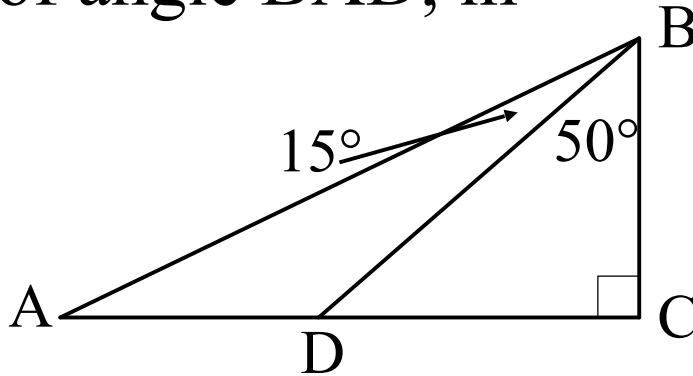
55. Suppose A is the set of all odd numbers between 10 and 16, and B is the set of all prime numbers between 10 and 16. How many distinct results are possible if a number from set B is subtracted from a number in set A?

Answer: 4 (results)

56. Four consecutive prime numbers have a sum that is divisible by three. What is the smallest possible value of this sum?

Answer: 36

57. Point D is on side AC of triangle ABC, $m\angle ABD = 15^\circ$ and $m\angle DBC = 50^\circ$. What is the measure of angle BAD, in degrees?



Answer: 25 (degrees)

58. Today a father's age is five times his son's age. Exactly three years ago, the sum of their ages was 30. How old is the son today?

Answer: 6 (years)

59. A line parallel to $y = 4x + 6$ passes through $(5, 10)$. What is the y -coordinate of the point where this line crosses the y -axis?

Answer: -10

60. What is the sum of the positive, odd factors of 24?

Answer: 4