21. Max must take 10 steps to go the same distance as three of his dad's steps. His dad takes 30 steps to walk down the hall. How many steps must Max take to walk down the same hall?

Answer: 100 (steps)

22. The area of a rectangle is 80 ft^2. If the width is increased by 1 foot and the length is decreased by 1 foot, the new rectangle has area 90 ft^2. What is the perimeter of the original rectangle, in feet?

Answer: 42 (feet)

23. In a round-robin tournament with n teams, the number of games that must be played is $\frac{n^2 - n}{2}$. How many teams are in a round-robin tournament in which 55 games are played?

Answer: 11 (teams)

24. The arithmetic mean of 7, 2, x and 10 is 9. What is the value of x?

Answer: 17

25. A certain right rectangular prism has a height of 6 feet and a rectangular base with sides measuring 3 feet and 5 feet. What is the volume of this prism, in cubic feet?

Answer: 90 (ft^3)

26. Charlie's mom just had a baby. He notices that they use an average of nine diapers per day. At this rate, how many total diapers will they use during June and July of this year?

Answer: 549 (diapers)

27. If 20% of 10% of a number is 12, what is 10% of 20% of the same number?

Answer: 12

28. The sum of the median and the range of a collection of numbers is 16. If each number in the collection is increased by 1, what is the sum of the median and the range of the new collection?

Answer: 17

29. Amy works for 36 hours per week for 10 weeks during the summer, making $3000. If she works for 30 weeks during the school year at the same rate of pay and needs to make another $3000, how many hours per week must she work?

Answer: 12 (hours or
hours per week)

30. A gumball machine contains 12 red, 6 blue, 1 white and 7 green gumballs. What is the least number of gumballs Cho must buy to guarantee having 3 gumballs of the same color?

Answer: 8 (gumballs)