1) The sum of three consecutive integers is 45. Find the integers.

    a) 9, 11, 13

    b) 11, 13, 15

    c) 13, 15, 17

    d) 14, 15, 16

2) A snail is trying to escape from a well 15 feet deep. The snail can climb 2 feet each day, but each night it slides back 1 foot. How many days will the snail take to climb out of the well?

    a) 5 days

    b) 8 days

    c) 14 days

    d) 15 days

3) Jalene scores 85%, 80%, and 100% on her first three mathematics tests. What must she score on her next test in order to bring her mean score to 88%?

    a) 87%

    b) 88%

    c) 98%

    d) 100%

4) The combined ages of a father and his twin daughters are 54 years. The father was 24 years old when the twins were born. How old is each of the three people?

    a) 24, 15, 15

    b) 18, 18, 18

    c) 34, 10, 10

    d) 30, 12, 12

5) Anne starts walking at 8 km per hour. Fifteen minutes later, Art begins jogging along the same route at 12 km per hour. How long will it take Art to catch up to Anne?

a) 15 minutes

b) 30 minutes

c) 45 minutes

d) 1 hour

6) Isabella started her own company when she was 20 years old. That company grew to be a major supplier of erasers to the mathematical community. However, the economy has hit Isabella's company hard. In 2010, she agreed to take a pay cut of 10% to help her struggling company. In 2011, she took an additional 5% pay cut. But in 2012, she will receive a pay raise of 15%. If she started at $98,000 before the first pay cut in 2010, what will her salary be in 2012?

a) $83,000

b) $83,790

c) $96358.50

d) $98,000

7) What is the probability of getting a sum of 7 or 11 by rolling two dice?

a) 1/9

b) 2/9

c) 1/6

d) 7/36

8) Shana has a collection of dimes and quarters. The number of dimes equals the number of quarters. She has a total of $4.20. How many of each coin does Shana have?

a) 17 dimes and 10 quarters

b) 12 dimes and 12 quarters

c) 13 dimes and 13 quarters

d) 16 dimes and 16 quarters

9) The sum of three consecutive integers is 120. What is the largest integer?

   a) 6

   b) 39

   c) 40

   d) 41

10) A farmer wishes to fence in a field 80 yards by 100 yards. He will install a fence post every 10 yards. How many fence posts will he need?

   a) 18 fence posts

   b) 33 fence posts

   c) 36 fence posts

   d) 40 fence posts

11) Working by herself, April can distribute a batch of advertising poster in 6 hours. Whitney can do the same job in 4 hours. Annabeth, the fastest of all, can do the job in 3 hours. If all three girls work on the same job, how long will it take?

   a) 1 hour

   b) 1 hours, 20 minutes

   c) 2 hours

   d) 2 hours, 30 minutes

12) In a tennis tournament, each athlete plays one match against each of the other athletes. There are 14 athletes schedule to play in the tournament. How many matches will be played?

   a) 28 games

   b) 78 games

   c) 91 games

   d) 182 games

13) The triangles shown below are made of toothpicks. How many toothpicks are in the 10th figure?
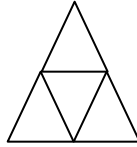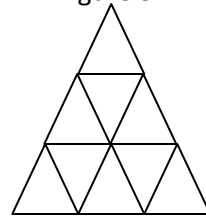
Figure 1   Figure 2   Figure 3

a) 30 toothpicks

b) 100 toothpicks

c) 165 toothpicks

d) 198 toothpicks

14) What is the maximum number of whole 3-by-5-inch index cards that would fit completely and without overlap on the top of a square-foot tile?

a) 4 cards

b) 6 cards

c) 8 cards

d) 9 cards

15) Luke sold one-third as many raffle tickets as Leia. Leia sold 3 times as many as Jaina. Jaina sold 7 fewer than Corran. If Corran sold 12 tickets, how many did Luke sell?

a) 5 tickets

b) 19 tickets

c) 45 tickets

d) 57 tickets

16) The second side of a triangle is twice as long as the first side and the third side is 10 cm longer than the first side. If the perimeter is 70 cm, what are the lengths of the three sides?

a) 10 cm, 20 cm, 40 cm

b) 20 cm, 30 cm, 40 cm

c) 20 cm, 20 cm, 30 cm

d) 15cm, 25 cm, 30 cm

17) John works as an elevator operator in a posh hotel. One morning he started on the ground floor. His first trip took him up to the tenth floor. Then he went back down 3 floors. Next he went up five more floors then back down four floors. Now he was at the exact middle of the hotel. How many floors are in the hotel?

a) 13 floors

b) 14 floors

c) 15 floors

d) 16 floors

18) The length, width, and height of a right rectangular prism are in the ratio 5:3:2. A wire model of the prism is made from 1 meter of wire. What are the dimensions, in centimeters, of the model?

a) 15 cm by 9 cm by 6 cm

b) 12.5 cm by 7.5 cm by 5 cm

c) 25 cm by 15 cm by 10 cm

d) 50 cm by 30 cm by 20 cm

19) Tickets to a play are priced at $2.50 for students and $3.50 for adults. Thirty more student tickets than adult tickets were sold. If the total ticket sales were $1335, how many of each kind were sold?

a) 200 students, 230 adults

b) 210 students, 240 adults

c) 240 students, 210 adults

d) 250 students, 220 adults

20) Two cards are drawn from a deck of cards at random. What is the probability that both are diamonds?

   a) 1/26

   b) 1/17

   c) 1/13

   d) 2/13

21) A new teacher has 3 sport coats, 8 ties, and 5 pairs of slacks. How many different outfits can he wear consisting of a coat, tie, and slacks?

   a) 16 outfits

   b) 24 outfits

   c) 100 outfits

   d) 120 outfits

22) How many three-digit numbers are greater than 300 and have three different digits?

   a) 120 numbers

   b) 392 numbers

   c) 504 numbers

   d) 699 numbers

23) At noon on Monday, Jacob takes his pulse. He finds that his heart is beating at 80 beats per minute. At that rate, on what day of the week will Jacob's heart have beaten 1,000,000 more times?
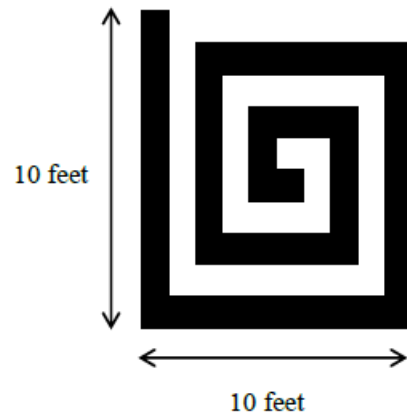
   a) Monday

   b) Tuesday

   c) Wednesday

   d) Thursday

24) If you fold a square paper vertically, the new rectangle has a perimeter of 15 inches. What is the area of the original square?

   a) 10 square inches

   b) 15 square inches

   c) 25 square inches

   d) 56.25 square inches

25) Pizza Presto! offers three styles of pizza. They have a traditional round pizza with a 14-inch diameter. They also offer a square pizza 13 inches by 13 inches. The last style is a rectangular pizza 8 inches by 15 inches. To the nearest hundredth of an inch, how much larger is the largest pizza than the smallest pizza?

   a) 12 inches

   b) 15.06 inches

   c) 33.94 inches

   d) 49.00 inches

26) Abby, Beth, Carla, and Donna started a book club. Each month, one person hosts the party and another person provides the food. The host gets the pick the book to be read and one of the other three brings snacks. The role of host and the food provider changes each month. How many months will it take until there has been every possible combination of host and food provider?

   a) 9 months

   b) 12 months

   c) 15 months

   d) 16 months

27) Each path in the diagram to the right is one foot wide. What is the area of the shaded path?

   a) 48 square feet

   b) 50 square feet

   c) 55 square feet

   d) 56 square feet

10 feet

10 feet

28) What is the largest amount of money you can have in coins and still not be able to give change for a dollar?

   a) $1.19

   b) $1.25

   c) $1.33

   d) $1.50

29) Tony gave Joseline 50% of his notebooks. Joseline gave Paulo 50% of the notebooks she got from Tony. Paulo gave Max 50% of the notebooks he got from Joseline. Max got 4 notebooks. What percent of Tony's notebooks does Max have?

   a) 10%

   b) 12.5%

   c) 25%

   d) 50%

30) Jenny is trying to figure out the weight of a wheel of cheese. She knows that one-fifth of a pound of cheese is perfectly balanced by two-fifths of a wheel of the same cheese. How much does the entire wheel of cheese weigh?

   a) 1/5 pound

   b) 1/4 pound

   c) ½ pound

   d) 3/5 pound