MARCH MATHNESS
2022-2023

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Saturday, March 25th
March Mathness
(Duration: 25 minutes)

Last Name: _____ First Name: _____

Grade: _____

Instructions:

1. DO NOT BEGIN UNTIL YOUR PROCTOR INSTRUCTS YOU TO DO SO.

2. This is a 25 question multiple choice test. Each question is followed by answers marked A, B, C, and D. Only one of these is correct.

3. Circle your answer. Erase any stray marks and do not circle multiple answers to one question. Only answers properly marked on the test form will be graded.

4. There is **no penalty** for guessing. Your score on this test is the number of correct answers.

5. **No aids** are permitted other than scratch paper and erasers. No problems on the test will require the use of a calculator.

6. Before beginning the test, your proctor will ask you to record certain information on the answer form.

7. If you complete the problems before time is called, use the remaining time to check your answers.

8. Remember that this is designed to be different from math tests in school. A 50% on this test is considered excellent, so don't be discouraged if you don't know how to solve the problem.

1. What is 525/5?

   (A) 100   **(B)** 25   **(C)** 105   **(D)** 125

2. $38 + 15 - 10 = 17 +$ ___

   (A) 44   **(B)** 33   **(C)** 25   **(D)** 26

3. Which of the following numbers is divisible by three?

   (A) 308   **(B)** 17   **(C)** 102   **(D)** 311

4. Luke made an apple pie for Thanksgiving and cut it into 12 slices. If there are 5 people in his family and everyone takes 2 slices, how many slices are left of the pie?

   (A) 7   **(B)** 2   **(C)** 10   **(D)** 12

5. Casey bakes a dozen Christmas cookies. If her dog, Charlie, eats $\frac{1}{4}$ of Casey's cookies, how many cookies will she have left?

   (A) 9 cookies   **(B)** 8 cookies   **(C)** 4 cookies   **(D)** 3 cookies

6. Abe has a math competition on Saturday March 25th, and a doctor's appointment on the following Friday. What is the date of his doctor's appointment?

   (A) March 31st   **(B)** March 30th   **(C)** March 29th   **(D)** March 28th

7. Which decimal is equal to 13/100?

   (A) 0.130   **(B)** 1.300   **(C)** 0.013   **(D)** 0.870

8. Solve for the product. Simplify as much as possible if necessary: $\frac{3}{4} \cdot \frac{4}{5} \cdot \frac{2}{3}$.

   (A) $\frac{24}{60}$ **(B)** $\frac{2}{5}$ **(C)** $\frac{3}{5}$ **(D)** $\frac{6}{15}$

9. Amanda wants to read a lot over the summer, so she makes a goal of reading three times as many books this summer as she read last summer. If she read 36 books last summer,

what is her goal of books this summer?

(A) 24 books   **(B)** 72 books   **(C)** 108 books   **(D)** 90 books

10. Elizabeth has a piano recital coming up this Saturday. She is going to play 3 pieces. The first piece takes 2 minutes to play and the second piece takes 5 minutes to play. If her pieces take 10 minutes to play altogether, how many minutes does the third piece take to play?

(A) 3 minutes   **(B)** 5 minutes   **(C)** 1 minute   **(D)** 4 minutes

11. Chris has 30 pencils. He gives a third of the pencils to Dan, and half of the remaining pencils to Emma. How many pencils does Chris have left?

(A) 5 pencils   **(B)** 10 pencils   **(C)** 15 pencils   **(D)** 20 pencils

12. Which inequality is true?

(A) $3 \cdot 5 > 20$ **(B)** $2/4 < 1$ **(C)** $100 - 25 < 65$ **(D)** $27 < 57 < 47$

13. Leslie has 60 dollars that she needs to spend on paper plates. Store A has a deal that offers 20% off on a purchase of 5 items or more and sells paper plates for $10 per 20 pack. Store B has a deal that offers 10% off on a purchase of 4 items or more and sells plates for $8 per 20 pack. At which store can Leslie buy the greatest number of plates?

(A) Store A, since she can buy 20 more plates there.
(B) Store B, since she can buy 20 more plates there.
(C) Store A, since she can buy 40 more plates there.
(D) She can buy the same number of plates at both stores.

14. If a car going 24 miles per hour drives in a straight line for 10 minutes, how far have you traveled?
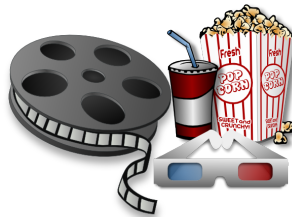
(A) 4 miles   **(B)** 6 miles   **(C)** 3 miles   **(D)** 10 miles

15. Jerry has two cylindrical piggy banks. Piggy bank A has a base area of 80 cm.^{2} and a height of 12 cm., while piggy bank B has a base area of 60 cm.^{2} and a height of 15 cm. Which piggy bank has a greater volume and by how much?
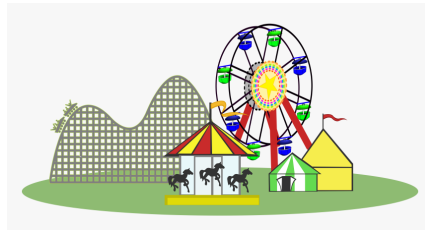

(A) Piggy bank A, 60 cm.^{3} **(B)** Piggy bank B, 60 cm.^{3} **(C)** Piggy bank A, 40 cm.^{3}
(D) Piggy bank B, 40 cm.^{3}

16. Your mom gives you and your sister $20.00 to spend on snacks at the movie theater. The concession stand at the movie theater sells soda for $1.00, popcorn for $3.00, and packages of sour patch kids for $2.00. If you and your sister buy 1 soda and 1 popcorn each, how many packages of sour patch kids can you buy?

(A) 4 packages   **(B)** 10 packages   **(C)** 9 packages   **(D)** 6 packages

17. Jack and his brother Owen are trying to figure out who is taller. Their mom measures them while they stand up against a doorframe and marks their heights. Then, she measures the distance from the floor to each mark with a measuring tape. If Jack's height is 3 times 14 inches, and Owen's height is 4 times 10 inches tall, which brother is taller?

(A) Jack is taller.   **(B)** Owen is taller.   **(C)** They are the same height.
(D) There is not enough information to tell who is taller.

18. Jake, Julia, and Jim are at Six Flags, and are trying to decide what to do. Jake wants to ride the Ninja, which has a 30 min. wait, Julia wants to ride the Batman, which has a 45 min. wait, and Jim wants to ride the Sky Screamer, which has a 12 min. wait. Assume each ride takes 5 min. in addition to the wait. If they have two more hours to spend at

the park, how long will they have at the end to get pretzels?

(A) 18 min.   **(B)** 33 min.   **(C)** 102 min.
(D) They won't have any time at the end to get pretzels.

19. Holly has seven baseball caps, one for each color of the rainbow (red, orange, yellow, green, blue, indigo, violet). If she chooses one hat randomly, what is the probability that it will be either red or orange?

    (A) $\frac{1}{7}$ **(B)** $\frac{2}{7}$ **(C)** $\frac{5}{9}$ **(D)** $\frac{2}{3}$

20. June wants to start a garden in her backyard. If she has a 20ft by 4ft backyard and is only allowed to use $\frac{3}{4}$ of it for her gardening space, how many square feet does she have to use for her garden?

    (A) 45 ft.^{2} **(B)** 60 ft.^{2} **(C)** 80 ft.^{2} **(D)** 53 ft.^{2}

21. Amanda is hosting a party for her friend. There will be 20 people total at the party, including Amanda and her friend. She predicts that each person will use two plates, one small plate and one big plate. If a pack of 20 small plates is for $6 and a pack of 20 big plates is $10, how much will Amanda be spending per person for a small plate and a big plate?

    (A) $0.30 small plate, $0.50 big plate   **(B)** $0.30 small plate, $5 big plate
    (C) $0.40 small plate, $0.50 big plate   **(D)** $3 small plate, $5 big plate

22. Compute: $2^2 + (4 - 5)^2$.

    (A) 2   **(B)** 3   **(C)** 5   **(D)** 8

23. You are planning a surprise birthday party for one of your friends, Daisy. When you go to the store you see that plates come in packs of 5, cups come in packs of 6, and party hats come in packs of 10. If there will be 12 people in total attending the party and each person will get two cups, two plates, and one party hat, what is the least number of packs of supplies in total you will have to buy?

(A) 9 packs of supplies   (B) 10 packs of supplies   (C) 11 packs of supplies
(D) 12 packs of supplies

24. If Ellie is traveling 200 miles an hour on the subway, how many miles is she traveling per minute?

(A) 1200.00 miles per minute   (B) 3.33 miles per minute   (C) 12000.00 miles per minute
(D) 15.00 miles per minute

25. If Talia has 12 people to feed at her birthday party to feed at her birthday party, and 40 pieces of cake, how many pieces of cake will she have left over to take home if each person wants 3 pieces of cake?

(A) 3   (B) 12   (C) 4   (D) 6