

NAME _____

SCHOOL _____

2010 Middle School Math Festival**Individual Round: Team 2 and 3**

1. Four students each order the following for lunch: chicken nuggets for \$2.89, French fries for \$1.19, and juice for \$1.09. What is the total cost for lunch?

- A. \$21.08 B. \$20.68 C. \$20.28 D. \$5.17

2. Manny has \$79.69 in his savings account. He takes out \$34.37. How much money does he have left in his account?

- A. \$45.33 B. \$45.32 C. \$112.04 D. \$114.06

3. Find the product: 5.83×4.5 .

- A. 37.575 B. 26.235 C. 24.21 D. 23.32

4. Find the quotient: $18.27 \div 6.3$

- A. 2.3 B. 0.34 C. 3 D. 2.9

5. What is the fraction as a decimal? $\frac{22}{15}$

- A. $3.2\bar{6}$ B. $1.4\bar{6}$ C. $22.1\bar{3}$ D. $3.5\bar{3}$

6. What is the decimal as a fraction (or mixed number) in simplest form? 4.0625

- A. $8\frac{1}{8}$ B. $8\frac{3}{8}$ C. $4\frac{3}{16}$ D. $4\frac{1}{16}$

7. Find the sum. $3\frac{2}{7} + 2\frac{3}{14} + 4\frac{3}{7}$

- A. $9\frac{13}{14}$ B. $10\frac{1}{14}$ C. $9\frac{9}{28}$ D. $9\frac{8}{21}$

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8. Find the product: $8\frac{2}{5} \times 5\frac{1}{2}$

A. $46\frac{1}{5}$

B. $40\frac{1}{5}$

C. 40

D. $40\frac{2}{5}$

9. Find the sum: $-84 + (-11)$

A. 95

B. 73

C. -73

D. -95

10. Evaluate: $-1 - (-5) - (-3)$

A. 9

B. -7

C. -9

D. 7

11. Find the product: $12 \times (-4) \times (-5)$

A. -32

B. -240

C. 32

D. 240

12. Find the quotient: $-18 \div (-2)$

A. $\frac{1}{9}$

B. 9

C. $-\frac{1}{9}$

D. -9

13. The American flag is customarily made with its width and length in the ratio of 10:19. Which of the following dimensions is in the correct ratio for the flag?

A. 107 by 193 in.

B. 100 by 190 in

C. 107 by 190 in.

D. 100 by 193 ft.

14. A van travels 150 miles on 5 gallons of gas. How many gallons will it need to travel 630 miles?

A. 189 gal.

B. 63 gal.

C. 21 gal.

D. 42 gal.

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15. Evaluate the expression. $43 - 3m$ for $m = 6$

- A. 25 B. 40 C. 46 D. 61

16. Find the complement of an angle with measure of 72° .

- A. 162° B. 18° C. 252° D. 108°

17. A barrel contains 1 blue, 2 yellow, 7 red, 6 green, and 2 purple marbles. What is the probability of randomly selecting a marble which is NOT yellow?

- A. $\frac{7}{9}$ B. $\frac{8}{9}$ C. $\frac{9}{10}$ D. $\frac{11}{18}$

18. Find the median of the following data set: $\frac{1}{2}, \frac{1}{8}, \frac{5}{6}, \frac{3}{10}, \frac{7}{12}$

- A. $\frac{3}{10}$ B. $\frac{1}{8}$ C. $\frac{1}{2}$ D. $\frac{5}{6}$

19. Find the elapsed time between 4:49 PM and 5:18 AM.

- A. 14 hr 14 min B. 12 hr 29 min C. 5 hr 29 min D. 12 hr 14 min

20. Complete the statement: $83,310.5 \text{ mm} = \underline{\hspace{2cm}} \text{ cm}$.

- A. 83,310,500 cm B. 833,105 cm C. 8,331.05 cm D. 8.33105 cm

21. If no digit may be used more than once, how many different 5-digit numbers can be formed by using only the digits 3, 8, 1, 2, 5, and 7?

- A. 360 numbers B. 717 numbers C. 722 numbers D. 720 numbers

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22. Find the mean of the following data set: 13, 34, 26, 31, 28

- A. 26.4 B. 28 C. 26 D. 33

23. Complete the statement: $7\frac{3}{5}$ ft = _____ yd

- A. $15\frac{1}{5}$ yd B. $3\frac{4}{5}$ yd C. $2\frac{8}{15}$ yd D. $22\frac{4}{5}$ yd

24. What is the circumference of a circle with a diameter of 17 cm? Use $\pi = 3.14$ and round to the nearest whole number.

- A. 53 cm B. 227 cm C. 20 cm D. 27 cm

25. How many letters in the word **WHISPER** have exactly two lines of symmetry?

- A. 0 B. 1 C. 2 D. 3

26. A fan has 5 equally-spaced blades. What is the least number of degrees that you can rotate the fan onto itself?

- A. 120° B. 60° C. 90° D. 72°

27. Solve the equation: $a + \frac{1}{3} = \frac{6}{7}$

- A. $1\frac{1}{4}$ B. $\frac{1}{2}$ C. $\frac{7}{10}$ D. $\frac{11}{21}$

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28. Solve the equation: $2\frac{1}{3}x = 7\frac{7}{8}$

A. $3\frac{3}{8}$

B. $3\frac{1}{2}$

C. $3\frac{5}{8}$

D. $4\frac{1}{4}$

29. You start a search for a buried object by marking the center of a field as (0, 0) with coordinates giving distances in yards. Coordinates to the north or east are positive and coordinates to the south or west are negative. You find nothing at (-12, 8) so you try a likely-looking spot 3 yards to the east and 11 yards to the south of the first spot. What are the coordinates of the second spot?

A. (-9, 19)

B. (-9, -3)

C. (-15, 19)

D. (-15, -3)

30. A map has a scale of 3 centimeters : 8 kilometers. If two cities are 11 centimeters apart on the map, what is the actual distance between the cities, to the nearest tenth of a kilometer?

A. 41.3 km

B. 29.3 km

C. 4.1 km

D. 293.3 km