Franklin Math Bowl 2007
6th Grade Test

1. What is the least common denominator for 36 and 46?

    a. 828   b. 424   c. 325   d. 756

2. Add: $\dfrac{1}{3} + \dfrac{6}{5}$

    a. $1\dfrac{8}{15}$ b. $\dfrac{7}{8}$ c. $\dfrac{7}{15}$ d. 1

3. Subtract: $\dfrac{4}{3} - \dfrac{5}{6}$

    a. $\dfrac{1}{3}$ b. $\dfrac{1}{5}$ c. $\dfrac{1}{2}$ d. $\dfrac{1}{4}$

4. What is the scientific notation for 45,600,000?

    a. 456×10 b. 4.56×10^6 c. 4.56×10^7 d. 456×10^7

5. Write fractional notation for 56.23. Do not simplify.

    a. $\dfrac{5623}{10}$ b. $\dfrac{5623}{1000}$ c. $\dfrac{5623}{100}$ d. $\dfrac{5623}{1023}$

6. Find the decimal notation for 73.5%.

    a. 0.777   b. 0.735   c. 0.7   d. 0.00735

7. What is $\dfrac{(8^2 - 4^2) \div 3}{3^2 - 7}$?

    a. 8   b. 10   c. 6   d. 3

8. Find the perimeter of a rectangle if $l = 3$ and $w = 4$.

    a. 12   b. 9   c. 10   d. 14

9. Simplify: $[(4^2 - 4) \div 2] \cdot |{-2} - 3|$

    a. 30   b. -60   c. -30   d. 60

10. What is the prime factorization for 630?
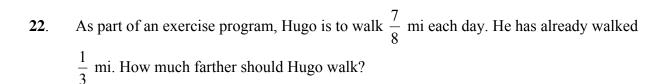
    a. $15 \times 21 \times 2$ b. $3 \times 5 \times 7 \times 6$
    c. $3 \times 3 \times 5 \times 7 \times 2$ d. $5 \times 9 \times 14$

11. A triangular sail from a single-sail day cruiser is 3.4 m wide and 4.2 m tall. Find the area of the sail.

a. 7.4 m^2 b. 7.13 m^2 c. 7.14 m^2 d. 7.12 m^2

12. Write a division sentence that corresponds to this situation.
A parent gives $24 to 3 children, with each child getting the same amount. How much does each child get?

a. $24 + 3 = 27$ b. $24 - 3 = 21$ c. $24 \div 3 = 8$ d. $24 \div 2 = 12$

13. Arrange the fractions from smallest to largest: $\dfrac{3}{10}, \dfrac{5}{12}, \dfrac{4}{15}$

a. $\dfrac{4}{15}, \dfrac{3}{10}, \dfrac{5}{12}$ b. $\dfrac{4}{15}, \dfrac{5}{12}, \dfrac{3}{10}$ c. $\dfrac{5}{12}, \dfrac{4}{15}, \dfrac{3}{10}$ d. $\dfrac{5}{12}, \dfrac{3}{10}, \dfrac{4}{15}$

14. 5% of what is 20?

a. 250   b. 200   c. 400   d. 350

15. $24 is what percent of $96?

a. 25%   b. 30%   c. 40%   d. 35%

16. Find the mode of these numbers: 12, 13, 14, 15, 12, 16, 17, 12, 13, 15, 14, 12, 19, 13.

a. 13   b. 14 and 15   c. 12   d. 16

17. Ruby bought a 60-lb bag of grass seed for $34. What is the unit price in dollars per pound? (Round to the nearest cent.)

a. 0.57 dollars per pound   b. 0.54 dollars per pound
c. 0.55 dollars per pound   d. 0.51 dollars per pound

18. The sales tax rate in North Carolina is 9%. How much tax is charged on the purchase of 3 video games at $13.95 apiece? (Round to the nearest cent.)

a. $3.97   b. $4.00   c. $3.99   d. $3.77

19. A 40-inch board is to be cut into three pieces so that the second piece is twice as long as the first piece and the third piece is 5 times as long as the first piece. Find the length of all three pieces.

a. 1st piece: 5 in.; 2nd piece: 10 in; 3rd piece: 25 in.
b. 1st piece: 15 in.; 2nd piece: 5 in; 3rd piece: 20 in.
c. 1st piece: 2 in.; 2nd piece: 4 in; 3rd piece: 34 in.
d. 1st piece: 5 in.; 2nd piece: 10 in; 3rd piece: 15 in.

20. A new soft drink beverage carton contains 8 cans, each of which holds 12oz. How many ounces of beverage are there in the carton?

a. 64 oz   b. 96 oz   c. 20 oz   d. 24 oz

21. A gold necklace that regularly sells for $500 is on sale for $225. Find the discount rate.

a. 50%   b. 40%   c. 55%   d. 45%

22. As part of an exercise program, Hugo is to walk $\frac{7}{8}$ mi each day. He has already walked $\frac{1}{3}$ mi. How much farther should Hugo walk?

a. $\frac{13}{24}$ mi   b. $\frac{9}{11}$ mi   c. $\frac{29}{24}$ mi   d. $\frac{9}{24}$ mi

23. A recipe for fudge brownies calls for ¼ cup of oil and ⅔ cup of milk. How many cups of liquid ingredients are in the recipe?

a. $\frac{3}{7}$ cup   b. $\frac{11}{12}$ cup   c. $\frac{2}{12}$ cup   d. $\frac{3}{12}$ cup

24. In college football the distance between goalposts was reduced from 23 ⅓ ft to 18 ½ ft. By how much was it reduced?

a. $4\frac{3}{6}$ ft   b. $4\frac{5}{6}$ ft   c. $5\frac{3}{6}$ ft   d. $5\frac{5}{6}$ ft

25. The sum of three consecutive odd integers is negative fifty-one. Find the middle odd integer.

a. -17   b. -15   c. -13   d. -19

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Answer Key

1. A
2. A
3. C
4. C
5. C
6. B
7. A
8. D
9. A
10. C
11. C
12. C
13. A
14. C
15. A
16. C
17. A
18. D
19. A
20. B
21. C
22. A
23. B
24. B
25. A