MS "B" Math Final Exam Review

Multiple Choice
Identify the letter of the choice that best completes the statement or answers the question.

Find the sum.

____ 1. $\frac{6}{14} + \frac{7}{14} + \frac{2}{14}$

a. $1\frac{9}{14}$ b. $2\frac{1}{7}$ c. $\frac{6}{7}$ d. $1\frac{1}{14}$

____ 2. $\frac{1}{2} + \frac{3}{8}$

a. $\frac{1}{2}$ b. $\frac{3}{4}$ c. $\frac{7}{8}$ d. $\frac{4}{10}$

____ 3. $3\frac{2}{7} + 2\frac{3}{14} + 4\frac{3}{7}$

a. $9\frac{13}{14}$ b. $10\frac{1}{14}$ c. $9\frac{9}{28}$ d. $9\frac{8}{21}$

____ 4. $7\frac{5}{7} + 2\frac{1}{2}$

a. $14\frac{1}{21}$ b. $13\frac{1}{14}$ c. $10\frac{3}{14}$ d. $18\frac{1}{14}$

____ 5. Gerri spends $\frac{5}{24}$ of her money on pencils and $\frac{3}{24}$ on paper. What fraction of her money does she spend? Give the answer in simplest form.

a. $\frac{1}{3}$ b. $\frac{4}{3}$ c. $\frac{3}{8}$ d. $\frac{8}{23}$

Find the difference.

____ 6. $\frac{17}{18} - \frac{11}{18}$

a. $\frac{5}{18}$ b. $\frac{7}{18}$ c. $\frac{1}{18}$ d. $\frac{1}{3}$

____ 7. Use any method to add or subtract.
$\frac{5}{7} - \left(\frac{3}{14} + \frac{3}{14}\right)$

a. $\frac{2}{7}$ b. $\frac{1}{21}$ c. $\frac{1}{7}$ d. $1\frac{1}{7}$

____ 8. Peter drank $\frac{1}{3}$ of a quart of milk. Steve drank $\frac{3}{4}$ of a quart. How much more did Steve drink than Peter?

a. $\frac{1}{3}$ qt b. $\frac{5}{12}$ qt c. $\frac{3}{4}$ qt d. $\frac{4}{3}$ qt

____ 9. Last year it rained $2\frac{1}{2}$ in. in April and $1\frac{1}{3}$ in. in May. Which number below is the total rainfall for the two months?

a. $3\frac{5}{6}$ in. b. $3\frac{1}{6}$ in. c. $3\frac{1}{5}$ in. d. $4\frac{1}{6}$ in.

Solve the equation.

____ 10. $x - \frac{1}{4} = \frac{4}{8}$

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

Write an equivalent time using only the smallest unit.

____ 11. 5 h 32 min

a. 182 min b. 319 min c. 332 min d. 317 min

____ 12. 7 wk 6 d

a. 49 d b. 55 d c. 43 d d. 48 d

____ 13. Laura wants to take a trolley from Lakefront Park to the zoo. The trips start at 1:05 P.M. and take 45 minutes. Trolley departures occur every 10 minutes. Which of the following tables shows the correct departure and arrival times for the trolleys?

a.

Trolley	Departs	Arrives
First	1:05P.M.	1:50P.M.
Second	1:50P.M.	2:35P.M.
Third	2:35P.M.	3:20P.M.
Fourth	3:20P.M.	4:05P.M.

c.

Trolley	Departs	Arrives
First	1:05P.M.	1:50P.M.
Second	1:15P.M.	2:00P.M.
Third	1:25P.M.	2:10P.M.
Fourth	1:35P.M.	2:20P.M.

b.

Trolley	Departs	Arrives
First	1:05P.M.	1:15P.M.
Second	1:50P.M.	2:00P.M.
Third	2:35P.M.	2:45P.M.
Fourth	3:20P.M.	3:30P.M.

d.

Trolley	Departs	Arrives
First	1:05P.M.	1:15P.M.
Second	1:15P.M.	1:25P.M.
Third	1:25P.M.	1:35P.M.
Fourth	1:35P.M.	1:45P.M.

____ 14. Claude has $5\frac{1}{2}$ meters of ribbon and uses $4\frac{2}{3}$ meters of it. How much ribbon does Claude have left? Give your answer in simplest form.

a. $1\frac{1}{6}$ meters b. $11\frac{1}{6}$ meters c. $\frac{5}{6}$ meters d. $1\frac{5}{6}$ meters

Find the product. Simplify.

____ 15. $\frac{4}{9}$ of 27

a. $\frac{31}{9}$ b. 7 c. $\frac{1}{12}$ d. 12

Estimate the product.

____ 16. $5\frac{1}{3} \times 11\frac{3}{5}$

a. 65 b. 50 c. 55 d. 60

____ 17. Estimate the area of a picture measuring $3\frac{1}{7}$ feet by $8\frac{1}{9}$ feet.

a. 27 ft^2 b. 24 ft^2 c. 36 ft^2 d. 32 ft^2

Find the quotient.

____ 18. $\frac{5}{6} \div \frac{6}{7}$

a. $1\frac{1}{35}$ b. $\frac{5}{7}$ c. $\frac{35}{36}$ d. $\frac{7}{5}$

____ 19. $\frac{5}{28} \div \frac{1}{7}$

a. $1\frac{1}{4}$ b. $\frac{4}{5}$ c. $\frac{5}{196}$ d. $\frac{4}{21}$

____ 20. You have $28\frac{4}{9}$ grams of a substance and want to divide it into vials of $7\frac{1}{9}$ grams each. Estimate how many vials you can fill.

a. 7 vials b. 5 vials c. 4 vials d. 6 vials

____ 21. A baker at Rod's Bakery misread the directions and used $5\frac{3}{4}$ cups of flour in a recipe. It was $1\frac{3}{4}$ times too much flour. How much flour should the baker have used?

a. $11\frac{3}{8}$ cups b. $5\frac{9}{16}$ cups c. $4\frac{3}{5}$ cups d. $\frac{11}{23}$ cups

Solve the equation. Check the solution.

____ 22. $\frac{x}{3} = \frac{1}{8}$

a. $\frac{1}{24}$ b. $2\frac{2}{3}$ c. 24 d. $\frac{3}{8}$

____ 23. $\frac{3}{7}x = 18$

a. 49 b. 56 c. 63 d. 42

____ 24. Miako and Jo are planning to go together to a movie that starts at 3:00 P.M. It takes 15 minutes to travel from Miako's house to Jo's home and another 10 minutes to get to the theater. What is the latest time that Miako can leave his home and still make the 3:00 P.M. movie on time?

a. 2:45 P.M. b. 2:40 P.M c. 2:35 P.M d. 2:55 P.M

____ 25. Which would you measure using yards?

a. length of a cross-country race course
b. length of a desk
c. length of your finger
d. length of a shopping mall

____ 26. Which of the following would likely weigh about 8 pounds?
a. newborn baby
b. mother whale
c. large dog
d. professional football player

____ 27. In a math question, Magda correctly answered a question that asked for a typical measure of orange juice in a full family-size jug. Which was her answer?
a. 2 cups b. 1 gal c. 10 gal d. 10 fl oz

____ 28. Which unit would you use to measure the amount of juice in a glass?
a. gallons b. quarts c. pints d. ounces

____ 29. Which would you most likely measure using inches?
a. width of a road
b. length of a hallway
c. length of your nose
d. distance to the moon

Complete the statement.

____ 30. $16\frac{1}{2}$ ft = ■ yd
a. $5\frac{1}{2}$ b. 33 c. $8\frac{1}{4}$ d. $49\frac{1}{2}$

____ 31. Subtract.

9 yd 4 ft
– 6 yd 3 ft

a. 3 yd 7 ft
b. 15 yd 1 ft
c. 3 yd 1 ft
d. 15 yd 7 ft

____ 32. Which three ratios equal $\frac{4}{12}$?
a. $\frac{1}{3}, \frac{2}{6}, \frac{3}{9}$ b. $\frac{3}{1}, \frac{2}{6}, \frac{9}{3}$ c. $\frac{3}{1}, \frac{6}{2}, \frac{9}{3}$ d. $\frac{1}{3}, \frac{6}{2}, \frac{3}{9}$

____ 33. The American flag is customarily made with its width and length in the ratio of 10 to 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.

____ 34. Determine which pair of ratios can form a proportion.
a. $\frac{3}{5}, \frac{18}{45}$ b. $\frac{3}{5}, \frac{27}{35}$ c. $\frac{3}{5}, \frac{21}{35}$ d. $\frac{3}{5}, \frac{24}{30}$

____ 35. Determine which pair of ratios CANNOT form a proportion.
a. $\frac{2}{7}, \frac{4}{14}$ b. $\frac{2}{7}, \frac{4}{21}$ c. $\frac{20}{70}, \frac{2}{7}$ d. $\frac{2}{7}, \frac{6}{21}$

____ 36. Which ratio can form a proportion with $\frac{2}{3}$?

a. $\frac{8}{9}$ b. $\frac{6}{12}$ c. $\frac{8}{15}$ d. $\frac{18}{27}$

____ 37. Which ratio CANNOT form a proportion with $\frac{2}{5}$?

a. $\frac{6}{20}$ b. $\frac{14}{35}$ c. $\frac{4}{10}$ d. $\frac{6}{15}$

____ 38. Solve the first proportion for *x*. Use that value to solve the second proportion for *y*.

$\frac{x}{24} = \frac{9}{72}, \frac{x}{9} = \frac{y}{12}$

a. $x = 3, y = 4$ b. $x = 4, y = 3$ c. $x = 27, y = 36$ d. $x = 3, y = 6$

____ 39. A van travels 180 miles on 6 gallons of gas. How many gallons will it need to travel 750 miles?

a. 75 gallons b. 25 gallons c. 50 gallons d. 225 gallons

____ 40. Which ratio can form a proportion with $\frac{6}{9}$?

a. $\frac{8}{12}$ b. $\frac{12}{8}$ c. $\frac{8}{11}$ d. $\frac{10}{12}$

____ 41. Which ratio CANNOT form a proportion with $\frac{8}{18}$?

a. $\frac{60}{135}$ b. $\frac{46}{108}$ c. $\frac{12}{27}$ d. $\frac{4}{9}$

Solve the proportion.

____ 42. $\frac{19}{12} = \frac{f}{9}$

a. 15.25 b. 14.75 c. 14.25 d. none of these

____ 43. A scale model of the Golden Gate Bridge in San Francisco has a main span that is 284 centimeters long. If the scale of the model is 1 cm : 15 ft, how long is the main span of the bridge?

a. 2,130 ft b. 4,260 ft c. 19 ft d. 3,150 ft

Write the percent as a decimal.

____ 44. 4%

a. 0.004 b. 4 c. 0.04 d. 0.4

____ 45. Of the 380 students at Central Middle School, 25% are on the honor roll. How many students are on the honor roll?

a. 95 students b. 105 students c. 85 students d. 100 students

____ 46. Everyone in Sandy's class has to do a science project. Out of the 30 students, 80% have completed their projects. How many students still need to do their projects?

a. 6 students b. 54 students c. 110 students d. 24 students

Estimate the sale price of the item.

____ 47. 20% off a bike for $431.84

a. $180 b. $80 c. $120 d. $320

____ 48. 60% off a pair of shoes for $51.95

a. $40 b. $30 c. $20 d. $26

Short Answer

49. There are 20 people in Susie's class. When Susie took a poll about winter sports, she found that nine people enjoy figure skating, six people enjoy skiing, one person plays ice hockey, and four people simply do not enjoy cold weather. In addition, she found out that three of those people who enjoy figure skating also enjoy skiing. Draw a diagram to figure out how many people enjoy figure skating but not skiing.

50. The sum of three consecutive odd numbers is 81. Find the numbers.