Ratio, Proportion, and Percent Skills Checkup

Circle the letter for the correct answer to each question. Reduce all fractions to simplest terms.

1. 13% of $25 =

   A $325   C $3.25
   B $225   D $2.25
   E None of these

2. 45% of □ = 27

   F 60   H 121
   G 30   J 55
   K None of these

3. What percent of 80 is 20?

   A 40%   C 20%
   B 25%   D 60%
   E None of these

4. 375 is what percent of 500?

   F 25%   H 45%
   G 55%   J 75%
   K None of these

5. What percent of 80 is 16?

   A 50%   C 20%
   B 15%   D 16%
   E None of these

6. Which decimal has the same value as 75%?

   F 0.75   H 7.5
   G 0.075   J 7.05
   K None of these

7. A company ordered 452 red pens. They returned 113 of the pens because they were blue instead of red. What percent of the pens were returned?

   A 75%   C 33%
   B 25%   D 40%

8. Elena bought 2 pounds of sliced ham for $3.75 per pound. Sales tax is 12%. How much does Elena pay?

   F $7.50   H $7.40
   G $0.90   J $8.40

9. A news article says that the average American family spends 27% of its income on housing. If the average family income is $35,000 per year, how much does the average American family spend on housing?

   A $7,245 per year
   B $9,450 per year
   C $2,450 per year
   D $2,700 per year

10. Audry spends $600 per month on rent. She makes $25,000 per year. To the nearest percent, what percent of her income does she spend on rent?

    F 28%   H 20%
    G 21%   J 29%

11. Which set of numbers is in order from least to greatest?

    A $\frac{3}{5}$, 35%, 3.5, $\frac{5}{3}$, 305%

    B $\frac{3}{5}$, $\frac{5}{3}$, 35%, 3.5, 305%

    C 35%, $\frac{3}{5}$, $\frac{5}{3}$, 3.5, 305%

    D 35%, $\frac{3}{5}$, $\frac{5}{3}$, 305%, 3.5

12. What is the value of n in the proportion below?

$$\frac{5}{25} = \frac{8}{n}$$

   A 40   C 200

   B $\frac{40}{25}$ D 1,000

13. Riley bought 42 ounces of cereal for $12.60. How much did he pay per ounce?

   F 30 cents   H 3.2 cents
   G 52.9 cents   J 23 cents

14. Which of these statements is true?

   A $20\% < 15.6\%$

   B $98\% < \frac{2}{3}$

   C $0.3 > 25\%$

   D $1 > 112\%$

15. Company rules state that Jeanette must rest 4 hours for every 6 hours she spends driving. Which of the following proportions could Jeanette use to figure out how many hours of rest she must have during a 32-hour drive?

   F $\frac{4}{6} = \frac{32}{n}$ H $\frac{n}{4} = \frac{6}{32}$

   G $\frac{4}{32} = \frac{n}{6}$ J $\frac{4}{6} = \frac{n}{32}$

16. In a certain country, the banks exchange 7 curos for every 4 U.S. dollars. How many curos will a traveler get for 140 U.S. dollars?

   A 80   C 980
   B 245   D 560

17. Which of the following number sentences could you use to find 32% of 67?

   F $67 \div 0.32 = n$ H $67 \times 0.32 = n$
   G $67 \times n = 32$ J $32 \times 6.7 = n$

18. A couch that normally costs $550 is marked down 20%. Which steps will give you the price of the couch on sale?

   A Multiply $550 by $\frac{2}{10}$ (or $\frac{1}{5}$) and then add the product to $550.

   B Multiply $550 by 0.2 and then subtract the product from $550.

   C Divide $550 by 0.2 and then subtract the quotient from $550.

   D Multiply $550 by $\frac{1}{2}$.

19. Which fraction has the same value as 25%?

   F $\frac{1}{4}$ H $\frac{1}{5}$

   G $\frac{1}{25}$ J $\frac{25}{10}$

20. Which of the following number sentences could you use to find the unknown value in the proportion below?

$$\frac{7}{20} = \frac{n}{45}$$

   A $\dfrac{7 \times 20}{45} = n$

   B $7 \times 20 \times 45 = n$

   C $7 \times n = 20 \times 45$

   D $7 \times 45 = n \times 20$

8. $19.60
9. $4.50
10. 120 correct

Ratio, Proportion, and Percent Skills Checkup
Pages 97–98
1. C
2. F
3. B
4. J
5. C
6. F
7. B
8. J
9. B
10. J
11. D
12. A
13. F
14. C
15. J
16. B
17. H
18. B
19. F
20. D

Algebra
Page 99
1. 63, 56, 49
2. 27, 33, 39
3. 192, 768, 3,072
4. 12.5, 6.25, 3.125
5. 53, 109, 221
6. 22, 38, 70
7. 5
8. 2
9. 7
10. 3
11. plus 14
12. times 2
13. divided by 5
14. plus 15
15. 32, 48

16. 44, 55
17. 6, 8
18. 10, 11
19. 1,000; 100,000
20. 6.5; 9.5

Page 101
1. $\div$
2. $-$
3. $\times$
4. $-$
5. $\times$
6. $\div$, $\times$
7. -35
8. -692
9. 2, 8, 10, 12, 48, 60, 60
10. 3, 10, 12, 40, 13, 52, 52
11. 6, 14, 14
12. 15
13. 7
14. 7

Page 102
1. add 4
2. add 6
3. subtract 25
4. multiply by 3
5. 0, 3, 12
6. 5, 9
7. 11, 10
8. 30, 18
9. B

Page 103
1. $16n$
2. $n + 12$
3. $5n$
4. $n + 5$
5. $n - 20$
6. $\frac{1}{8} \times n$ or $\frac{n}{8}$
7. $n + 10$
8. $\frac{n}{2}$ or $n \div 2$

9. $n + 17$
10. $n - 6$
11. $\frac{n}{3}$ or $\frac{1}{3} \times n$
12. $n - 2$

Page 104
1. 7
2. 13
3. 2
4. 20
5. 23
6. 13
7. 26
8. 18
9. 3
10. 80
11. 11
12. 28

Page 105
1. B
2. F
3. B
4. G
5. C
6. F
7. C
8. G

Page 107
1. 18
2. 845
3. 12
4. 88
5. 75
6. 25
7. 240
8. 16
9. 15
10. 12
11. 25
12. 20
13. 3
14. 20
15. 20