

BASIC MATH SKILLS

50 items

Suggested time: 50 minutes

1. Multiply and simplify: $3\frac{1}{4} \times \frac{1}{16} =$
 - A. $\frac{5}{8}$
 - B. $\frac{13}{16}$
 - C. $\frac{13}{64}$
 - D. $3\frac{3}{16}$
2. 15 is 20% of what number?
 - A. 3
 - B. 45
 - C. 75
 - D. 300
3. If a train travels 270 miles in 3 hours, how far will it travel in 4.5 hours?
 - A. 300 miles
 - B. 350 miles
 - C. 405 miles
 - D. 425 miles
4. At the bake sale, Josie bought 3 brownies for \$1.35 apiece. She paid with a \$5 bill. What change did she receive?
 - A. \$0.85
 - B. \$0.95
 - C. \$1.05
 - D. \$1.15
5. Express 20% as a fraction in lowest terms.
 - A. $\frac{1}{20}$
 - B. $\frac{1}{10}$
 - C. $\frac{1}{5}$
 - D. $\frac{1}{2}$

GO ON TO THE NEXT PAGE

6. How many pounds are there in 8 kilograms?
- A. 3.6 pounds
 - B. 16 pounds
 - C. 16.6 pounds
 - D. 17.6 pounds
7. Which of these dates is represented by the Roman numeral MDXVI?
- A. 1106
 - B. 1116
 - C. 1506
 - D. 1516
8. Multiply: $0.35 \times 0.25 =$
- A. 0.00875
 - B. 0.0875
 - C. 0.875
 - D. 8.75
9. Multiply: $0.52 \times 0.04 =$
- A. 0.00208
 - B. 0.0208
 - C. 0.208
 - D. 2.08
10. A farmer has a flock of sheep. He has 15 white sheep, 4 brown sheep, and 1 black sheep. What is the percentage of brown sheep in his flock? (Enter numeric value only. If rounding is necessary, round to the whole number.)
-
11. Which numeric system does *not* use place value?
- A. Roman
 - B. Arabic
 - C. Decimal
 - D. Binary

GO ON TO THE NEXT PAGE

12. What is the least common denominator of $\frac{1}{9}$ and $\frac{1}{12}$? (Enter numeric value only.)
- _____
13. Sergeant Kellogg had his men line up at 3:40 P.M. What would that be in military time?
- A. 0340
 - B. 3040
 - C. 1500
 - D. 1540
14. Solve for x . $3 : 5 :: 81 : x$
- A. 48
 - B. 123
 - C. 135
 - D. 405
15. Divide and simplify: $4\frac{1}{8} \div 1\frac{1}{2} =$
- A. $4\frac{1}{2}$
 - B. $4\frac{1}{4}$
 - C. $2\frac{3}{4}$
 - D. $2\frac{1}{4}$
16. Mr. Sanders takes \$100 from the ATM. He spends \$8.45 on lunch and buys a newspaper for \$2.25. Later he spends \$20 on bus tokens. How much is left from his original \$100?
- A. \$49.30
 - B. \$69.30
 - C. \$79.30
 - D. \$89.30
17. Frederica worked 7 hours on Monday and $6\frac{1}{2}$ hours each day from Tuesday through Friday. If she makes \$10.45 an hour, what was her gross income for the week? (Enter numeric value only. If rounding is necessary, round to the whole number.)
- _____

GO ON TO THE NEXT PAGE

18. Donald earns 8% of the selling price of each house he sells. If he sells a house for \$152,000, how much does he earn?
- A. \$12,160
 - B. \$14,040
 - C. \$19,000
 - D. \$21,600
19. How many millimeters are there in 25 centimeters? (Enter numeric value only.)
- _____
20. A plan for a house is drawn on a 1:40 scale. If the length of the living room on the plan measures 4.5 inches, what is the actual length of the built living room?
- A. 45 feet
 - B. 25 feet
 - C. 15 feet
 - D. 12 feet
21. Add: $2.34 + 23.4 + 234 =$
- A. 70.2
 - B. 230.72
 - C. 234.74
 - D. 259.74
22. The number 4 is 20% of what number? (Enter numeric value only.)
- _____
23. Add and simplify: $4\frac{2}{3} + 6\frac{1}{2} =$
- A. $11\frac{1}{6}$
 - B. $10\frac{1}{3}$
 - C. $9\frac{1}{6}$
 - D. 9

GO ON TO THE NEXT PAGE

24. Tamison bought 20 stamps for 29¢ each and 40 stamps for 42¢ each. If she gave the postal worker \$25, how much change did she receive?
- A. \$2.40
 - B. \$2.80
 - C. \$3.20
 - D. \$3.60
25. Convert this military time to regular time: 0705 hours.
- A. 7:05 A.M.
 - B. 7:05 P.M.
 - C. 5:07 A.M.
 - D. 5:07 P.M.
26. Teresa began collecting baseball cards exactly 8 months ago, and in that time she has collected 144 cards. On average, how many baseball cards has she collected per month?
- A. 12
 - B. 16
 - C. 18
 - D. 22
27. What is 70% of 110?
- A. 77
 - B. 79
 - C. 81
 - D. 83
28. Divide: $5,117 \div 31 =$
- A. 109 r3
 - B. 115 r14
 - C. 133 r5
 - D. 165 r2

GO ON TO THE NEXT PAGE

29. Gus is making a chili recipe that calls for three parts beans to five parts ground beef. If he is using 8 cups of ground beef for a big family dinner, how many cups of beans will Gus need?
- A. 3.6 cups
 - B. 4 cups
 - C. 4.6 cups
 - D. 4.8 cups
30. 98 is 175% of what number?
- A. 48
 - B. 52
 - C. 54
 - D. 56
31. Express $\frac{7}{4}$ as a decimal.
- A. 1.25
 - B. 1.45
 - C. 1.75
 - D. 1.95
32. How many feet are in 6 meters?
- A. 1.83 feet
 - B. 18.48 feet
 - C. 18.8 feet
 - D. 19.68 feet
33. Express the ratio of 25:80 as a percentage.
- A. 31.25%
 - B. 34%
 - C. 41.25%
 - D. 43.75%

GO ON TO THE NEXT PAGE

34. A package of 10 pencils is divided between every 2 students in class. If there are 20 students in class, then how many pencils are needed?
- A. 20
 - B. 40
 - C. 80
 - D. 100
35. What date in Arabic numerals is Roman numeral MCCIV? (Enter numeric value only.)
- _____
36. A certain number is 7 less than the product of 18 and 4. What is the value of that number?
- A. 63
 - B. 65
 - C. 72
 - D. 79
37. Multiply: $0.15 \times 0.52 =$
- A. 0.0078
 - B. 0.078
 - C. 0.78
 - D. 7.8
38. Multiply: $2.4 \times 4.2 =$
- A. 1.008
 - B. 10.08
 - C. 10.8
 - D. 18

GO ON TO THE NEXT PAGE

39. If the outside temperature on a sunny day is 82 degrees on the Fahrenheit scale, what is the approximate temperature on the Celsius scale?
- A. 18°C
 - B. 24°C
 - C. 28°C
 - D. 50°C
40. In a scale drawing for a garden, 2 cm = 1 m. If the garden measures 8 cm by 10 cm in the drawing, how large will it be in reality?
- A. 2 m by 3 m
 - B. 4 m by 5 m
 - C. 8 m by 10 m
 - D. 16 m by 20 m
41. Gerald can bake 3 dozen cookies in 30 minutes. How long will it take him to bake 12 dozen cookies?
- A. 90 minutes
 - B. 1 hour 40 minutes
 - C. 2 hours
 - D. 4 hours
42. Divide: $8.11 \div 5 =$
- A. 1.424
 - B. 1.622
 - C. 1.672
 - D. 1.724
43. Subtract and simplify: $\frac{5}{9} - \frac{2}{5} =$
- A. $\frac{7}{15}$
 - B. $\frac{2}{45}$
 - C. $\frac{7}{45}$
 - D. $\frac{11}{15}$

GO ON TO THE NEXT PAGE

44. The Soap Factory is selling 3 bars of almond-scented soap for \$2.58. What would it cost to buy 5 bars of soap?
- A. \$3.30
 - B. \$3.80
 - C. \$4.30
 - D. \$4.80
45. Subtract and simplify $4\frac{1}{5} - 2\frac{2}{5}$.
- A. $2\frac{2}{5}$
 - B. $1\frac{4}{5}$
 - C. $1\frac{3}{5}$
 - D. $1\frac{1}{5}$
46. Express $\frac{2}{5}$ as a decimal.
- A. 0.2
 - B. 0.25
 - C. 0.4
 - D. 2.5
47. 18 is 25% of what number? (Enter numeric value only.)
- _____
48. Callie makes 2% interest quarterly on a deposit of \$100. After a year, about how much is in her account?
- A. \$102
 - B. \$104
 - C. \$106
 - D. \$108
49. Patient X usually ingests about 2,000 calories daily. If Patient X is placed on a regimen that cuts that daily intake by 20%, how many calories will Patient X consume in a week? (Enter numeric value only.)
- _____

GO ON TO THE NEXT PAGE

50. How many teaspoons are there in 3 tablespoons?

- A. 9 teaspoons
- B. 10.5 teaspoons
- C. 12 teaspoons
- D. 18 teaspoons

STOP. IF YOU HAVE TIME LEFT OVER,
CHECK YOUR WORK ON THIS SECTION ONLY.