

SAT Focused Practice Worksheet 5- Arithmetic –
Difference-Prime Factorization-Prime Numbers-Divisibility Rules

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 1. The owner of a small business makes \$76,000 per year. His business manager makes \$49,000. What is the difference between these two salaries?
- a. \$36,000
b. \$27,000
c. \$33,000
d. \$125,000
e. \$25,000
- _____ 2. Which of the following expresses the prime factorization of 36?
- a. $2 \times 3 \times 3$
b. 6×6
c. $2 \times 2 \times 3 \times 3$
d. $2 \times 3 \times 6$
e. 3.6×10
- _____ 3. Which of the following numbers is prime?
- a. 74
b. 63
c. 51
d. 39
e. 71
- _____ 4. The amount of Rita's paycheck this week is \$452. After cashing the check and setting aside money for groceries, she has \$357 remaining. How much money did she set aside for groceries?
- a. \$195
b. \$105
c. \$809
d. \$357
e. \$95
- _____ 5. $3\frac{1}{3} - 4\frac{5}{6} = ?$
- a. $-1\frac{1}{2}$
b. $1\frac{5}{6}$
c. $-6\frac{1}{3}$
d. $8\frac{1}{6}$
e. $-1\frac{1}{3}$

_____ 6. If 12 and 20 each divide K without a remainder, what is the value of K ?

- a. 24
- b. 60
- c. 120
- d. 30
- e. It cannot be determined from the information given.

_____ 7. $\left(\frac{2}{3} \times 7\right)\left(\frac{11}{5} \times 3\right)\left(\frac{5}{11} \times 2\right) = ?$

- a. 1
- b. 7
- c. 28
- d. 14
- e. 4

_____ 8. After $2\frac{1}{\frac{3}{\frac{8}{4}}}$ has been simplified to an improper fraction in lowest terms what is the denominator?

- a. 3
- b. 17
- c. 6
- d. 15
- e. 4

_____ 9. Which of the following is equal to 0.0036?

- a. $\left(\frac{1}{6}\right)^2$
- b. $\left(\frac{36}{100}\right)^2$
- c. $\left(\frac{6}{100}\right)^2$
- d. $\left(\frac{6}{10}\right)^2$
- e. $\left(\frac{6}{10}\right)^3$

_____ 10. $\frac{70}{10} + \frac{7}{100} + \frac{7}{1000} = ?$

- a. 0.777
- b. 7.77
- c. 70.77
- d. 7.707
- e. 7.077

_____ 11. $\sqrt{25 + 24} = ?$

- a. 9
- b. 11
- c. 7
- d. 49
- e. 15

- _____ 12. Which of the following must be true?
- I. The product of two consecutive nonzero integers is odd.
 - II. The product of two consecutive nonzero integers is even.
 - III. The product of two consecutive nonzero integers is positive.
- a. II and III only
 - b. I, II, and III
 - c. I only
 - d. II only
 - e. I and II only
- _____ 13. When is the value of the expression $\frac{9-x}{2}$ an integer?
- a. only when x is positive
 - b. only when x is even
 - c. only when x equals 0
 - d. only when x is odd
 - e. only when x is negative
- _____ 14. Eric purchased 4 presents on layaway that cost \$15.70, \$18.50, \$21.00, and \$26.40. If he made an initial deposit of one third of the total amount and the rest in 4 equal weekly payments, how much was each of the 4 weekly payments?
- a. \$27.20
 - b. \$15.40
 - c. \$54.40
 - d. \$13.60
 - e. \$20.40
- _____ 15. $\frac{2}{3} + (3)^{-2} + (6)^{-1} = ?$
- a. $\frac{5}{9}$
 - b. $-4\frac{1}{3}$
 - c. $-\frac{5}{18}$
 - d. $\frac{17}{18}$
 - e. $\frac{5}{18}$
- _____ 16. There are 45 students in a college computer science course. If $\frac{1}{9}$ of them are over the age of 30 and $\frac{3}{5}$ of the remaining are under 25, how many students are from 25 to 30 years old?
- a. 13
 - b. 5
 - c. 40
 - d. 27
 - e. 24
- _____ 17. A health club charges a monthly fee of \$40 plus \$6 for each visit. Julia's health club bill last month was \$166. For how many visits did the health club charge Julia last month?
- a. 17
 - b. 12
 - c. 21
 - d. 19
 - e. 4

- _____ 18. At a greenhouse, large plants cost \$7 and small plants cost \$4. Andy purchased a total of 20 plants, and paid with a \$100 bill. What is the maximum number of large plants that he bought?
- a. 6
b. 7
c. 3
- d. 4
e. 5
- _____ 19. $-|-3 + 5| - 2|-7| = ?$
- a. -20
b. 16
c. -28
- d. -16
e. -12
- _____ 20. A company estimates its annual budget to be \$45,500,000. What is this number expressed in scientific notation?
- a. 45.5×10^7
b. 455×10^5
c. 45.5×10^6
- d. 4.55×10^7
e. 4.55×10^8