

Study Guide for the Math Placement Exam

The following are a sample of questions on the Math Placement Exam. We strongly recommend you to complete this study guide without the use of a calculator.

Basic Mathematics

1. Add, subtract, multiply, and divide integers

1) $142 \times 17 = ?$

(a) 2404

(b) 2414

(c) 1126

(d) 1136

(e) none of these

2) $32105 - 1847 = ?$

(a) 20258

(b) 30157

(c) 30258

(d) 30259

(e) none of these

3) $89 \overline{)97277} = ?$

(a) 109

(b) 193

(c) 1093

(d) 10093

(e) none of these

2. Add, subtract, multiply, and divide fractions

4) $3\frac{7}{8} + 2\frac{1}{4} = ?$

(a) $5\frac{1}{8}$

(b) $5\frac{9}{16}$

(c) $5\frac{2}{3}$

(d) $6\frac{1}{8}$

(e) none of these

5) $8\frac{1}{3} - 4\frac{1}{2} = ?$

(a) $3\frac{1}{6}$

(b) $3\frac{5}{6}$

(c) $4\frac{1}{2}$

(d) $4\frac{5}{6}$

(e) none of these

6) $4\frac{2}{3} \times \frac{1}{2} = ?$

(a) $2\frac{1}{3}$

(b) $2\frac{2}{3}$

(c) $4\frac{1}{3}$

(d) $4\frac{2}{5}$

(e) none of these

7) $7\frac{3}{5} \div 8 = ?$

(a) $\frac{3}{40}$

(b) $\frac{19}{20}$

(c) $11\frac{4}{5}$

(d) $60\frac{4}{5}$

(e) none of these

3. Add, subtract, multiply, and divide decimals.

8) $25.01 + 36.5 + 200.35 = ?$

(a) 81.545

(b) 228.91

(c) 229.01

(d) 261.41

(e) 261.86

9) $100 \times 0.15 = ?$

(a) 1.50

(b) 15

(c) 30

(d) 150

(e) none of these

10) $0.6 \div 0.02 = ?$

(a) 0.03

(b) 0.3

(c) 3

(d) 30

(e) none of these

11) $13.4 - 0.5 = ?$

- (a) 1.29 (b) 1.34 (c) 12.9
(d) 13.4 (e) none of these

4. Percents

12) 20% of 25 is:

- (a) 5 (b) 50 (c) 125
(d) 250 (e) 50,017

13) 75% of what number is 300?

- (a) $\frac{1}{4}$ (b) 225 (c) 400
(d) 22,500 (e) none of these

14) What percent of 20 is 5?

- (a) 5% (b) 10% (c) 15%
(d) 20% (e) 25%

5. Ratios and Proportions

15) In a scale drawing 2 centimeters represents 75 kilometers. What length represents 225 kilometers?

- (a) 3 centimeters (b) 4 centimeters (c) 5 centimeters
(d) 6 centimeters (e) 7 centimeters

16) The ratio of men to women in a large lecture class is 5 to 7. If there are 45 men in the class, how many women are in the class?

- (a) 35 (b) 50 (c) 52
(d) 54 (e) 63

22) John's credit card company requires a minimum payment of 3% of the balance. What is the minimum payment due if his credit card balance is \$1500?

- (a) \$ 450 (b) \$45 (c) \$25
(d) \$50 (e) \$75

7. Solve simple equations

23) If $3x-7=11$ then x equals:

- (a) -6 (b) $\frac{4}{3}$ (c) 4
(d) 6 (e) 18

24) Which of the following is the solution of the equation $-17 = 8x - 1$?

- (a) $x = -2$ (b) $x = -\frac{18}{8}$ (c) $x = 2$
(d) $x = \frac{18}{8}$ (e) none of these

8. Prime numbers

25) Which of the following is a prime number?

- (a) 13 (b) 15 (c) 22
(d) 55 (e) none of these

26) Write the prime factorization of 60.

- (a) $20 \cdot 3$ (b) $10 \cdot 6$ (c) $2^2 \cdot 3 \cdot 5$
(d) $12 \cdot 5$ (e) $15 \cdot 4$

**Basic Mathematics
Answer Key**

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|------------|----------|------------|----------|
| 1. | b | 16. | e |
| 2. | c | 17. | c |
| 3. | c | 18. | b |
| 4. | d | 19. | c |
| 5. | b | 20. | b |
| 6. | a | 21. | a |
| 7. | b | 22. | b |
| 8. | e | 23. | d |
| 9. | b | 24. | a |
| 10. | d | 25. | a |
| 11. | c | 26. | c |
| 12. | a | 27. | e |
| 13. | b | 28. | d |
| 14. | e | 29. | a |
| 15. | d | 30. | b |