ACCUPLACER Math Placement Practice

Choose one answer per question. Circle A, B, C, or D.

1. What is $48 \div (7 - 3) + 2^3$?
   A. 20
   B. 26
   C. 14
   D. 32

2. Which fraction equals $7/12 - 1/8$?
   A. 1/4
   B. 5/12
   C. 11/24
   D. 3/8

3. What is the product of 2.75 and 4.6?
   A. 126.5
   B. 12.65
   C. 10.65
   D. 12.15

4. Which of these four numbers is greatest?
   A. 0.605
   B. 0.62
   C. 61%
   D. 5/8

5. After a 16% price reduction, a desk costs $84. What was its price before the reduction?
   A. $97.44
   B. $100
   C. $98.00
   D. $105.00

6. An order contains only pens and pencils in a ratio of 7 pens to 4 pencils. There are 66 items. How many are pencils?
   A. 24
   B. 28
   C. 42
   D. 38

7. What is the solution to $3(t + 2) - 4 = 2(t + 5)$?

A. 12
B. 4
C. −8
D. 8

8. Two signs are similar rectangles. A short side of the smaller sign is 8 inches, and the corresponding side of the larger sign is 12 inches. If the smaller perimeter is 36 inches, what is the larger perimeter?

A. 48 inches
B. 40 inches
C. 54 inches
D. 81 inches

9. Of 40 people, 17 take a morning class, 15 take an evening class, and 6 take both. How many take neither class?

A. 14
B. 8
C. 12
D. 20

10. A list contains the values 3, 6, 8, 9, 11, 13. Its largest value is replaced by 43. What happens to the mean and median?

A. The mean stays the same and the median rises by 5
B. The mean rises by 30 and the median rises by 5
C. The mean rises by 5 and the median rises by 5
D. The mean rises by 5 and the median stays the same

11. Which is a complete factorization of $3x^2 - x - 10$?

A. $(3x - 2)(x + 5)$
B. $(3x - 5)(x + 2)$
C. $(3x + 5)(x - 2)$
D. $(3x + 2)(x - 5)$

12. Which real value solves $3/(x - 1) = 5/(x + 3)$?

A. 2
B. 7
C. −7
D. −2

13. If $P(x) = x^3 + 3x^2 - 5x + 2$, what is the remainder when $P(x)$ is divided by $x + 2$?

A. 24
B. 12
C. 0
D. 16

14. Which real value solves $\log_2(x - 3) + \log_2(x + 3) = 4$?

A. 5
B. −5
C. 4
D. 7

15. A function is defined by $f(x) = \sqrt{(2x - 6)} + 4$ for $x \geq 3$. Which formula and domain describe its inverse?

A. $f^{-1}(x) = (x + 4)^2/2 - 3$ for $x \geq 4$
B. $f^{-1}(x) = (x - 4)^2/2 + 3$ for all real x
C. $f^{-1}(x) = (x - 4)^2/2 + 3$ for $x \geq 4$
D. $f^{-1}(x) = \sqrt{(2x - 6)} - 4$ for $x \geq 3$