

**GRADUATION MATH COMPETENCY  
PRACTICE TEST**

This test consists of 35 questions, administered in 30 minutes. It measures students' knowledge of operations with real numbers; operations with algebraic expressions; solution of equations and inequalities; and students' ability to apply algebraic operations and to interpret data.

**Elementary Algebra Skills (35 questions, 30 minutes)**

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|-------------------------------------------|-------------|
| 1. Operations with real numbers           | 9 questions |
| 2. Operations with algebraic expressions  | 9 questions |
| 3. Solution of equations and inequalities | 8 questions |
| 4. Applications                           | 9 questions |

**Sample Questions for Elementary Algebra Skills**

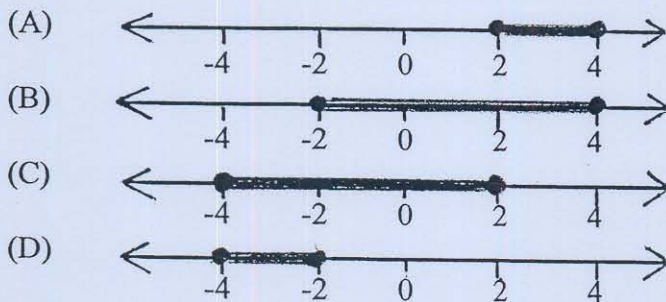
1.  $3^0 + 3^2 =$

- (A) 6
- (B) 8
- (C) 9
- (D) 10

2.  $(3t - 4)^2 =$

- (A)  $9t^2 - 16$
- (B)  $9t^2 + 16$
- (C)  $9t^2 - 24t - 16$
- (D)  $9t^2 - 24t + 16$

3. Which of the following is the graph of  $-4 \leq x \leq 2$ ?



4. If Eric has  $x$  dimes and  $y$  nickels, which of the following represents the amount of money he has, in cents?

- (A)  $5x + 10y$
- (B)  $10x + 5y$
- (C)  $(10 + 5)(x + 4)$
- (D)  $50(x + y)$

### DAILY NOON TEMPERATURE

Day	Noon Temperature (in degrees Fahrenheit)
Monday	$52^{\circ}$
Tuesday	$54^{\circ}$
Wednesday	$53^{\circ}$
Thursday	$x^{\circ}$

5. If the average (arithmetic mean) of the noon temperatures for the 4 days shown in the table above was  $55^{\circ}$ , what is the value of  $x$ ?
- (A) 55
  - (B) 56
  - (C) 57
  - (D) 61

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#### Elementary Algebra Answers:

- 1. D
  - 2. D
  - 3. C
  - 4. B
  - 5. D
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