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)

1. Operations with real numbers
2. Operations with algebraic expressions
3. Solution of equations and inequalities
4. Applications

Sample Questions for Elementary Algebra Skills

1. \(3^6 + 3^3 = \)
   (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 \(-4 \leq x \leq 2\)?

   (A) ![Graph A]
   (B) ![Graph B]
   (C) ![Graph C]
   (D) ![Graph D]

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

<table>
<thead>
<tr>
<th>Day</th>
<th>Noon Temperature (in degrees Fahrenheit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>52°</td>
</tr>
<tr>
<td>Tuesday</td>
<td>54°</td>
</tr>
<tr>
<td>Wednesday</td>
<td>53°</td>
</tr>
<tr>
<td>Thursday</td>
<td>x°</td>
</tr>
</tbody>
</table>

5. If the average (arithmetic mean) of the noon temperatures for the 4 days shown in the table above was 55°, what is the value of x?

(A) 55  
(B) 56  
(C) 57  
(D) 61

Elementary Algebra Answers:
1. D
2. D
3. C
4. B
5. D