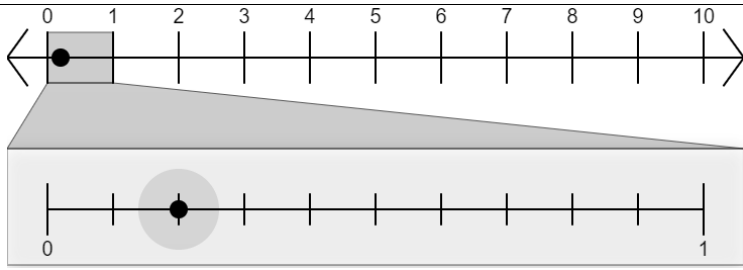
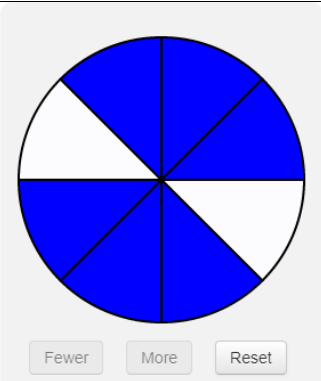


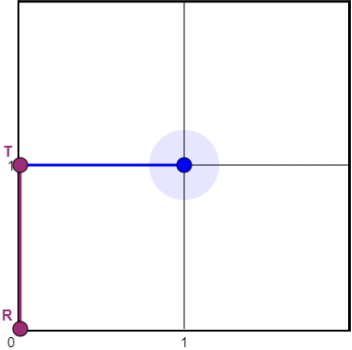
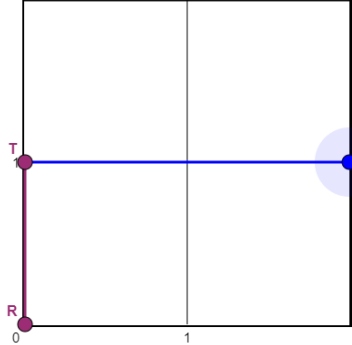


Practice Test Answer and Alignment Document  
**Mathematics – Grade 4**

**Part A**

| Item Number | Answer Key  | Kentucky Academic Standard | Mathematical Practices |
|-------------|---|----------------------------|------------------------|
| 1.          | <b>A</b>  | KY.4.NBT.2.a               | MP.7                   |
| 2.          |                                | KY.4.NF.6                  | MP.4, MP.7             |
| 3.          | See rubric  | KY.4.NF.3.d                | MP.1, MP.2             |
| 4.          |  <p>or equivalent fraction</p> | KY.4.NF.1.a                | MP.7                   |
| 5.          | <b>D</b>  | KY.4.NBT.2.a               | MP.7                   |
| 6.          | <b>B, C</b>   | KY.4.OA.5                  | MP.2                   |

## Part B

| Item Number    | Answer Key   | Kentucky Academic Standard | Mathematical Practices |               |   |   |    |                |    |             |            |
|----------------|--|----------------------------|------------------------|---------------|---|---|----|----------------|----|-------------|------------|
| 1.             | <p><b>Dog Heights</b></p> <table border="1" data-bbox="293 422 526 753"> <thead> <tr> <th>Feet</th> <th>Inches</th> </tr> </thead> <tbody> <tr> <td><math>\frac{1}{2}</math></td> <td>6</td> </tr> <tr> <td>2</td> <td>24</td> </tr> <tr> <td><math>2\frac{1}{2}</math></td> <td>30</td> </tr> </tbody> </table> | Feet                       | Inches                 | $\frac{1}{2}$ | 6 | 2 | 24 | $2\frac{1}{2}$ | 30 | KY.4.MD.1.c | MP.6, MP.8 |
| Feet           | Inches   |                            |                        |               |   |   |    |                |    |             |            |
| $\frac{1}{2}$  | 6  |                            |                        |               |   |   |    |                |    |             |            |
| 2              | 24   |                            |                        |               |   |   |    |                |    |             |            |
| $2\frac{1}{2}$ | 30   |                            |                        |               |   |   |    |                |    |             |            |
| 2.             | 1 or equivalent number   | KY.4.G.3.a                 | MP.7                   |               |   |   |    |                |    |             |            |
| 3.             | <p>The equation <math>7 \times 9 = 63</math> represents that <input type="text" value="63"/> is</p> <p><input type="text" value="7 times as many as"/> <input type="text" value="9"/>.</p>   | KY.4.OA.1                  | MP.2                   |               |   |   |    |                |    |             |            |
| 4.             | See rubric   | KY.4.MD.7                  | MP.1, MP.5, MP.7       |               |   |   |    |                |    |             |            |
| 5.             | <p>  </p> <p>Or</p> <p>  </p>  | KY.4.G.1                   | MP.5, MP.6             |               |   |   |    |                |    |             |            |

## Rubrics

| Part A #3            |   |
|----------------------|---|
| Rubric               |   |
| <b>Score Point 2</b> | <p>Student response is <math>\frac{8}{12} + \frac{4}{12} - \frac{10}{12}</math> in gap1 and <math>\frac{2}{12}</math> in gap2.</p> <p>Note:</p> <ul style="list-style-type: none"> <li>• Equivalent expressions are acceptable in gap1.</li> <li>• Expressions must include at least one operator.</li> <li>• Equivalent numbers are acceptable in gap2.</li> </ul> |
| <b>Score Point 1</b> | <p>Student response is <math>\frac{8}{12} + \frac{4}{12} - \frac{10}{12}</math> in gap1</p> <p>OR</p> <p><math>\frac{2}{12}</math> in gap2.</p> <p>OR</p> <p>Student response is a correct positive rational number in gap2 based on an incorrect expression in gap1.</p>   |
| <b>Score Point 0</b> | Student response is incorrect or irrelevant.  |

| Part B #4             |   |
|-----------------------|---|
| Rubric                |   |
| <b>Score Point 4</b>  | Student demonstrates a complete understanding of solving addition and subtraction problems to find unknown angles on a diagram in a mathematical problem.   |
| <b>Score Point 3</b>  | Student scores 3 points.  |
| <b>Score Point 2</b>  | Student scores 2 points.  |
| <b>Score Point 1</b>  | Student demonstrates a minimal understanding of solving addition and subtraction problems to find unknown angles on a diagram in a mathematical problem.  |
| <b>Score Point 0</b>  | Student response is insufficient to demonstrate a grade-appropriate, relevant understanding of the task.  |
| <b>Score Points</b>   | <p><b>Part A</b></p> <ul style="list-style-type: none"> <li>• Score 2 points: <ul style="list-style-type: none"> <li>○ Correct answer with correct and complete work or explanation.</li> </ul> </li> <li>• Score 1 point: <ul style="list-style-type: none"> <li>○ Correct answer with correct and partial work or explanation. <b>OR</b></li> <li>○ Correct answer with no work or explanation. <b>OR</b></li> <li>○ Incorrect answer due to a calculation error (work must be shown).</li> </ul> </li> </ul> <p><b>Part B</b></p> <ul style="list-style-type: none"> <li>• Score 2 points: <ul style="list-style-type: none"> <li>○ Correct answer with correct and complete work or explanation.</li> </ul> </li> <li>• Score 1 point: <ul style="list-style-type: none"> <li>○ Correct answer with correct and partial work or explanation. <b>OR</b></li> <li>○ Correct answer with no work or explanation. <b>OR</b></li> <li>○ Incorrect answer due to a calculation error (work must be shown).</li> </ul> </li> </ul> |
| <b>Correct Answer</b> | <p><b>Part A</b></p> <p>The measurements for angles 1 and 3 are the same, and angle 2 measures 110°.</p> $180 - 110 = 70$ $70 \div 2 = 35$ $110 + 35 = 145$ <p>The sum of the measures of angles 1 and 2 is 145°.</p> <p><b>Part B</b></p> <p>I know that angle 4 and angle 5 add up to 90° because a rectangle has four right angles.</p> $90 - 35 = 55$ <p>The measure of angle 4 is 55°.</p>   |