

**Chapter 2 Performance Task** (continued)

**Rubric**

Precisely Perfect	Points
1. $\frac{1}{60}$ ; $\frac{1}{60}$ ; $\frac{1}{3600}$	<p><b>3</b> Total possible points</p> <p><b>1</b> Point for each correct answer</p>
2. SWIFT Space Telescope, Kepler Space Telescope, Standard Beginner’s Telescope, Standard 16-inch Telescope, CoRoT Space Telescope, Spitzer Space Telescope, Hubble Space Telescope	<p><b>4</b> Correctly orders the telescopes from least accurate to most accurate</p> <p><b>2</b> Orders the telescopes from most accurate to least accurate</p>
3. CoRoT Space Telescope, Spitzer Space Telescope; 0.5, or $\frac{1}{2}$ , arcseconds	<p><b>3</b> Correctly identifies both telescopes and their level of accuracy</p>
4. Standard 16-inch Telescope; <i>Sample answer:</i> A telescope’s accuracy $t$ times 10 equals the accuracy of the Kepler Space Telescope, which is 10 arcseconds. $t \times 10 = 10$ $t = 1$ A Standard 16-inch Telescope has an accuracy of 1 arcsecond, so it is 10 times more accurate than the Kepler Space Telescope.	<p><b>4</b> Thoughtful response that references calculations</p> <p><b>2</b> Well-written response without reference to calculations</p> <p><b>1</b> Poorly written response without reference to calculations</p>
5. The Hubble Space Telescope is about 143 times more accurate; $\frac{16\text{-in.}}{\text{Hubble}} = \frac{1}{\frac{7}{1000}} \approx 143$	<p><b>2</b> Correct answer and correct work shown</p> <p><b>1</b> Correct answer or correct work shown</p>
<p><b>Mathematical Practices:</b>                      Solve problems carefully and accurately. Students will order, compare, multiply, and divide rational numbers.</p>	<p><b>4</b> The student uses problem-solving skills and applies and references appropriate calculations. Award partial credit as needed.</p>
<b>Total Points</b>	<b>20 points</b>