

**Figure 1.4: Examples of Lower- and Higher-Level-Cognitive-Demand Tasks**

<p><b>Grade 1:</b> I can add numbers whose sum is less than 20 using objects or drawings.</p> <p><b>Lower-Level-Cognitive-Demand Task</b></p> <p>A caterpillar came along. He ate 4 apples and 5 strawberries. How much fruit did he eat?</p>	<p><b>Higher-Level-Cognitive-Demand Task</b></p> <p>A caterpillar came along and ate 9 pieces of fruit. He ate some apples and some strawberries. Show the different ways he could eat 9 apples and strawberries.</p>
<p><b>Grade 5:</b> I can multiply a fraction or a whole number by a fraction in story problems.</p> <p><b>Lower-Level-Cognitive-Demand Task</b></p> <p>1. Solve: <math>\frac{5}{8} \times 14</math></p> <p>2. Compare using <math>&lt;</math>, <math>&gt;</math>, or <math>=</math>:</p> $\frac{5}{8} \times 14 \bigcirc 7.5$	<p><b>Higher-Level-Cognitive-Demand Task</b></p> <p>Joyce is making a bracelet with paper clips. Each paper clip measures <math>\frac{5}{8}</math> of an inch long. She has 14 paper clips. Joyce wants her bracelet to be at least <math>7\frac{1}{2}</math> inches long. Does she have enough paper clips to make her bracelet? Show your work in the following space.</p>
<p><b>Grade 8:</b> I can estimate solutions for solving systems of equations algebraically and graphically.</p> <p><b>Lower-Level-Cognitive-Demand Task</b></p> <p>Solve: <math>2x + 3y = 11</math>  <math>y = 4x - 1</math></p>	<p><b>Higher-Level-Cognitive-Demand Task</b></p> <p>Write two different systems of equations whose solutions are <math>(4, -3)</math>.</p>
<p><b>High School Geometry:</b> I can use trigonometric ratios to solve problems.</p> <p><b>Lower-Level-Cognitive-Demand Task</b></p> <p>How tall is a tree that casts a 30m shadow that makes a <math>53^\circ</math> angle with the ground?</p>	<p><b>Higher-Level-Cognitive-Demand Task</b></p> <p>Draw and label a right triangle to justify why the <math>\cos 45^\circ</math> is equivalent to the <math>\sin 48^\circ</math>. Use words, numbers, and symbols in your justification.</p>

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