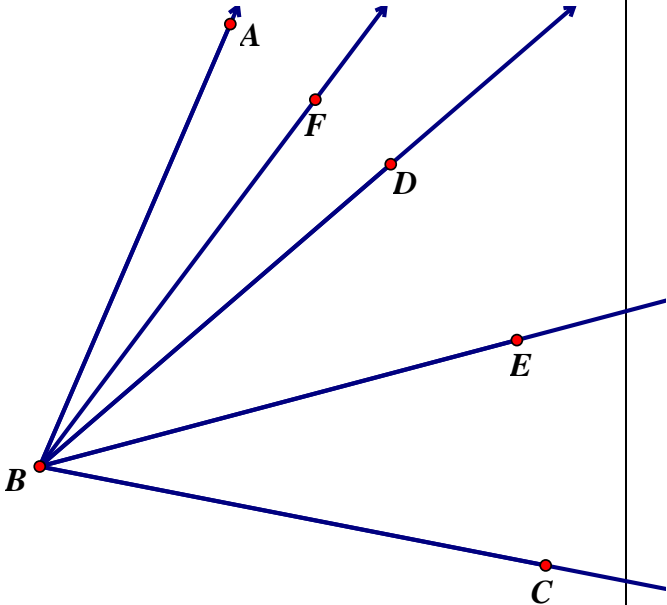
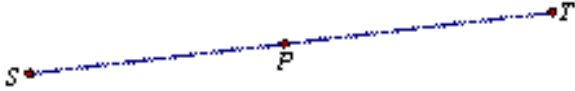


Unit 2: Target 2E Understanding Mathematical Connections

I can... statements	Sample Question	Sample Solution
Unit 2: Target 2E Understanding Mathematical Connections 1. I can find examples of using inductive and deductive reasoning in my life.	a. Think of an example of how you could use inductive reasoning to make conclusions about the following real-life scenarios: <ul style="list-style-type: none"> • How much sleep you need. • Running track. • Learning math. b. Think of an example of how you could use deductive reasoning to make conclusions about the following real-life scenarios: <ul style="list-style-type: none"> • How much sleep you need. • Coming home on time. • Brushing your teeth. 	

I can... statements	Sample Question	Sample Solution
<p>2. I can solve problems by reasoning with geometry and algebra.</p>	<p>1. $\angle ABC$ is trisected (cut into three equal parts) by \overline{BD} and \overline{BE}. $\angle ABD$ is then bisected by \overline{BF}. If $m\angle ABC = (12x)^\circ$, find $m\angle ABF$.</p>  <p>The diagram shows a vertex B with five rays extending from it. The rays are labeled A, F, D, E, and C from top to bottom. Ray BA is the uppermost ray. Ray BF is between BA and BD. Ray BD is between BF and BE. Ray BE is between BD and BC. Ray BC is the lowermost ray. The angle between BA and BC is the angle ABC. The rays BD and BE divide angle ABC into three equal parts. The ray BF divides angle ABD into two equal parts.</p> <p>2. The points $A(-4,1)$, $B(3,5)$ and $C(6,-2)$ are the vertices of a triangle.</p> <ul style="list-style-type: none"> • Determine the equation for the line containing segment the points A and C. Leave answer in slope – intercept form. • Determine the length of the longest side. 	

I can... statements	Sample Question	Sample Solution
<p>2. I can solve problems by reasoning with geometry and algebra.</p>	<p>3. Jake makes a conjecture that P is the midpoint of ST. He knows that $PS = 5x - 3$ and $PT = 3x + 9$. He also knows that $ST = 54$. Use algebra to show whether Jake's conjecture is correct.</p> 	
<p>3. I can describe the consequences of changing assumptions or using different definitions for a situation.</p>	<p>a. A trapezoid can be defined as “a quadrilateral with exactly one pair of parallel sides.” OR a trapezoid can be defined as “a quadrilateral with at least one pair of parallel sides.” Explain how changing the definition of a trapezoid affects the relationship of the trapezoid to other shapes.</p> <p>b. Officer Mark allows drivers to go 5 mph over the speed limit before pulling them over. Officer Dan allows drivers to go only 2 mph over the speed limit before pulling them over. What are some possible consequences of the two officers having different allowances for speeding drivers?</p>	