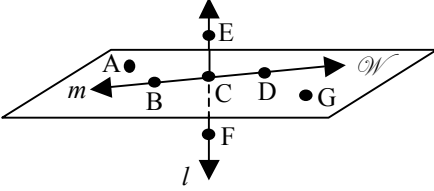




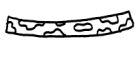

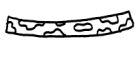



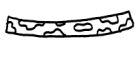



















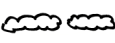

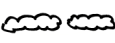

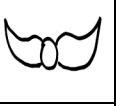

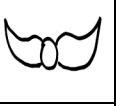





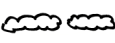

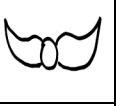




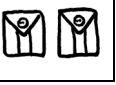

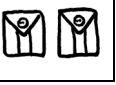
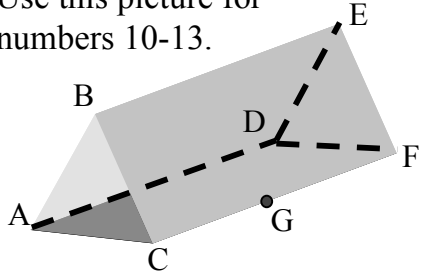





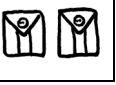














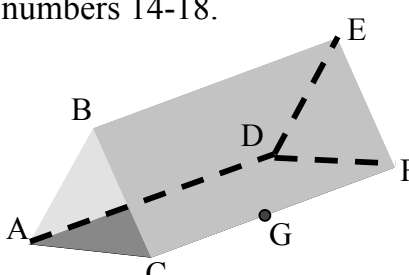
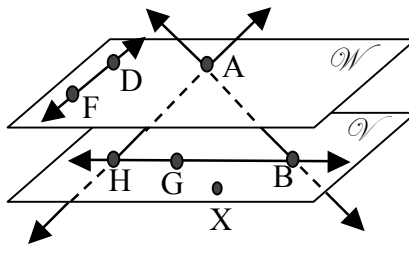


## Lesson 1: Points, Lines, and Planes

**Directions: Solve each problem and use a pencil to DRAW the object that corresponds with your answer. SHOW YOUR STEPS!!!**

<p>Use this picture for numbers 1 through 9.</p> 	<p><b>1.</b> Plane <math>W</math> contains _____.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">(a) If your answer is <u>point E</u> draw the following hat on the head.</td> <td style="text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is <u>point A</u> draw the following hat on the head.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is <u>point E</u> draw the following hat on the head.		(b) If your answer is <u>point A</u> draw the following hat on the head.		<p><b>2.</b> G lies in _____.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">(a) If your answer is <u>plane ABC</u> draw this pattern on the hat.</td> <td style="text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is <u>plane BCF</u> draw this pattern on the hat.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is <u>plane ABC</u> draw this pattern on the hat.		(b) If your answer is <u>plane BCF</u> draw this pattern on the hat.					
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(b) If your answer is <u>plane BCF</u> draw this pattern on the hat.														
<p><b>3.</b> D lies on _____.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">(a) If your answer is <u>line m</u> draw large, curvy ears.</td> <td style="text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is <u>EF</u> draw large, pointy ears.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is <u>line m</u> draw large, curvy ears.		(b) If your answer is <u>EF</u> draw large, pointy ears.		<p><b>4.</b> <math>\overline{BD}</math> intersects plane BGD at _____.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">(a) If your answer is <u>line m</u> draw the following hair on the sides of the head.</td> <td style="text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is <u>point C</u> draw the following hair on the sides of the head.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is <u>line m</u> draw the following hair on the sides of the head.		(b) If your answer is <u>point C</u> draw the following hair on the sides of the head.		<p><b>5.</b> Line <math>l</math> intersects plane <math>W</math> at _____.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">(a) If your answer is <u>line m</u> draw the following rectangular eyes.</td> <td style="text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is <u>point C</u> draw the following large, round eyes.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is <u>line m</u> draw the following rectangular eyes.		(b) If your answer is <u>point C</u> draw the following large, round eyes.	
(a) If your answer is <u>line m</u> draw large, curvy ears.														
(b) If your answer is <u>EF</u> draw large, pointy ears.														
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(b) If your answer is <u>point C</u> draw the following large, round eyes.														
<p><b>6.</b> <math>\overline{CD}</math> is contained in _____.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">(a) If your answer is <u>line l</u> draw the following eyebrows.</td> <td style="text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is <u>plane W</u> draw the following eyebrows.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is <u>line l</u> draw the following eyebrows.		(b) If your answer is <u>plane W</u> draw the following eyebrows.		<p><b>7.</b> C is the intersection of _____.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">(a) If your answer is <math>\overline{BD}</math> and <u>plane W</u> draw this large nose and mustache.</td> <td style="text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is <math>\overline{BD}</math> and <math>\overline{EF}</math> draw this large nose and mustache.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is $\overline{BD}$ and <u>plane W</u> draw this large nose and mustache.		(b) If your answer is $\overline{BD}$ and $\overline{EF}$ draw this large nose and mustache.		<p><b>8.</b> B and C are collinear with _____.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">(a) If your answer is <u>point D</u> draw the following on the shirt.</td> <td style="text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is <u>point A</u> draw the following on the shirt.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is <u>point D</u> draw the following on the shirt.		(b) If your answer is <u>point A</u> draw the following on the shirt.	
(a) If your answer is <u>line l</u> draw the following eyebrows.														
(b) If your answer is <u>plane W</u> draw the following eyebrows.														
(a) If your answer is $\overline{BD}$ and <u>plane W</u> draw this large nose and mustache.														
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(a) If your answer is <u>point D</u> draw the following on the shirt.														
(b) If your answer is <u>point A</u> draw the following on the shirt.														
<p><b>9.</b> A, B, D, and E are _____.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">(a) If your answer is <u>coplanar</u> draw these pockets on the shirt.</td> <td style="text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is <u>non-coplanar</u> draw these pockets on the shirt.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is <u>coplanar</u> draw these pockets on the shirt.		(b) If your answer is <u>non-coplanar</u> draw these pockets on the shirt.		<p>Use this picture for numbers 10-13.</p> 	<p><b>10.</b> <math>\overline{BC}</math> intersects _____.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">(a) If your answer is <math>\overline{CF}</math> draw a palm tree in the background.</td> <td style="text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is <math>\overline{AD}</math> draw a fir tree in the background.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is $\overline{CF}$ draw a palm tree in the background.		(b) If your answer is $\overline{AD}$ draw a fir tree in the background.					
(a) If your answer is <u>coplanar</u> draw these pockets on the shirt.														
(b) If your answer is <u>non-coplanar</u> draw these pockets on the shirt.														
(a) If your answer is $\overline{CF}$ draw a palm tree in the background.														
(b) If your answer is $\overline{AD}$ draw a fir tree in the background.														
<p><b>11.</b> Plane ABC intersects _____.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">(a) If your answer is <u>plane DEF</u> draw a lion in the background.</td> <td style="text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is <math>\overline{BE}</math> draw a giraffe in the background.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is <u>plane DEF</u> draw a lion in the background.		(b) If your answer is $\overline{BE}$ draw a giraffe in the background.		<p><b>12.</b> Plane ABC is parallel to _____.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">(a) If your answer is <u>plane BCE</u> draw a magnifying glass in the background.</td> <td style="text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is <u>plane DEF</u> draw binoculars in the background.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is <u>plane BCE</u> draw a magnifying glass in the background.		(b) If your answer is <u>plane DEF</u> draw binoculars in the background.		<p><b>13.</b> Plane ACF intersects _____.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">(a) If your answer is <math>\overline{BE}</math> color the animal red and orange.</td> <td style="padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is <u>plane BED</u> color the animal brown and yellow.</td> <td style="padding: 2px;"></td> </tr> </table>	(a) If your answer is $\overline{BE}$ color the animal red and orange.		(b) If your answer is <u>plane BED</u> color the animal brown and yellow.	
(a) If your answer is <u>plane DEF</u> draw a lion in the background.														
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(a) If your answer is <u>plane BCE</u> draw a magnifying glass in the background.														
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(a) If your answer is $\overline{BE}$ color the animal red and orange.														
(b) If your answer is <u>plane BED</u> color the animal brown and yellow.														

**Directions:** Solve each problem and **COLOR** the object that corresponds with your answer.  
**SHOW YOUR STEPS!!!**

<p>Use this picture for numbers 14-18.</p> 	<p>14. <math>\overline{AB}</math> is parallel to _____.</p> <p>(a) If your answer is <math>\overline{EF}</math> color the tree leaves yellow.</p> <p>(b) If your answer is <math>\overline{DE}</math> color the tree leaves green.</p>	<p>15. <math>\overline{AD}</math> is parallel to _____.</p> <p>(a) If your answer is <math>\overline{CF}</math> color the rest of the tree brown.</p> <p>(b) If your answer is <math>\overline{BC}</math> color the rest of the tree orange.</p>
<p>16. <math>\overline{AB}</math> is skew with _____.</p> <p>(a) If your answer is <math>\overline{CF}</math> color the binoculars orange and gray.</p> <p>(b) If your answer is <math>\overline{DE}</math> color the binoculars red and yellow.</p>	<p>17. <math>\overline{CE}</math> is non-collinear with _____.</p> <p>(a) If your answer is <u>point E</u> color the patterned stripe on the hat black and white.</p> <p>(b) If your answer is <u>point G</u> color the patterned stripe on the hat brown and yellow.</p>	<p>18. Plane BEC intersects plane ACD at _____.</p> <p>(a) If your answer is <math>\overline{CF}</math> color the rest of the hat brown.</p> <p>(b) If your answer is <u>point C</u> color the rest of the hat gray.</p>
<p>Use this picture for numbers 19 through 26.</p> 	<p>19. _____ contains G.</p> <p>(a) If your answer is <math>\overline{AH}</math> color the hair on the head yellow.</p> <p>(b) If your answer is <u>plane AHB</u> color the hair on the head gray.</p>	<p>20. <math>\overline{DF}</math> is skew with _____.</p> <p>(a) If your answer is <math>\overline{AD}</math> color the ears brown.</p> <p>(b) If your answer is <math>\overline{BH}</math> color the ears apricot.</p>
<p>21. Plane <math>\mathcal{W}</math> is parallel to _____.</p> <p>(a) If your answer is <u>plane AD</u> color the eyebrows brown.</p> <p>(b) If your answer is <u>plane <math>\mathcal{W}</math></u> color the eyebrows gray.</p>	<p>22. Plane <math>\mathcal{W}</math> intersects <math>\overline{AB}</math> at _____.</p> <p>(a) If your answer is <u>point B</u> color the eyes blue.</p> <p>(b) If your answer is <u>point A</u> color the eyes green.</p>	<p>23. <math>\overline{AB}</math> is non-coplanar with _____.</p> <p>(a) If your answer is <math>\overline{DF}</math> color the nose orange.</p> <p>(b) If your answer is <math>\overline{HG}</math> color the nose pink.</p>
<p>24. Plane ABH intersects plane <math>\mathcal{W}</math> at _____.</p> <p>(a) If your answer is <math>\overline{GX}</math> color the mustache brown.</p> <p>(b) If your answer is <math>\overline{BG}</math> color the mustache gray.</p>	<p>25. <math>\overline{DF}</math> is coplanar with _____.</p> <p>(a) If your answer is <math>\overline{GH}</math> color the face, neck, and arms pink.</p> <p>(b) If your answer is <u>point A</u> color the face, neck, and arms apricot.</p>	<p>26. <math>\overline{AB}</math> is skew with _____.</p> <p>(a) If your answer is <math>\overline{DF}</math> color the shirt brown and green, and the background blue.</p> <p>(b) If your answer is <math>\overline{GH}</math> color the shirt red and orange, and the background yellow.</p>

**Artistic Tip:** When you are done coloring, it looks nice to outline the major features using a black crayon or marker.