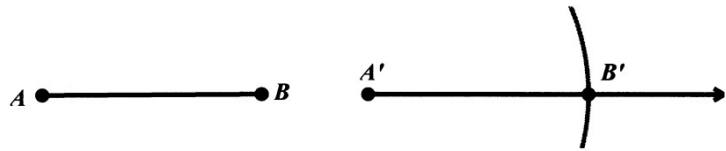


1. Copying a segment

(a) Using your compass, place the pointer at Point A and extend it until reaches Point B. Your compass now has the measure of AB.

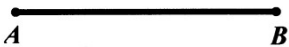


(b) Place your pointer at A', and then create the arc using your compass. The intersection is the same radii, thus the same distance as AB. You have copied the length AB.



NYTS (Now You Try Some)

Copy the given segment.



Create the length 3AB

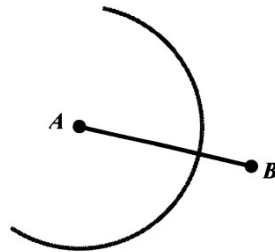


2. Bisect a segment

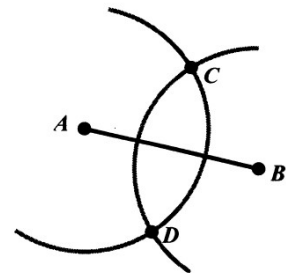
(a) Given \overline{AB}



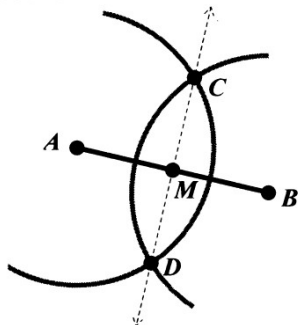
(b) Place your pointer at A, extend your compass so that the distance exceeds half way. Create an arc.



(c) Without changing your compass measurement, place your point at B and create the same arc. The two arcs will intersect. Label those points C and D.



(d) Place your straightedge on the paper so that it forms \overline{CD} . The intersection of \overline{CD} and \overline{AB} is the bisector of \overline{AB} .

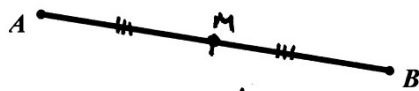


(e) I labeled it M, because it is the midpoint of \overline{AB} .



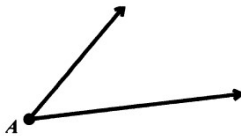
NYTS (Now You Try Some)

Bisect the segment (find the midpoint).

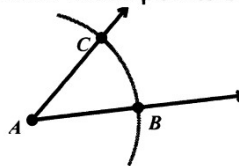


3. Copy an angle

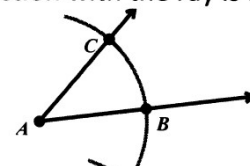
(a) Given an angle and a ray.



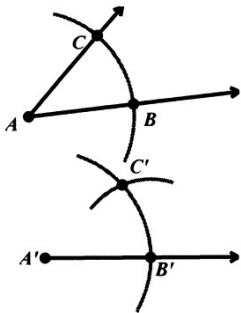
(b) Create an arc of any size, such that it intersects both rays of the angle. Label those points B and C.



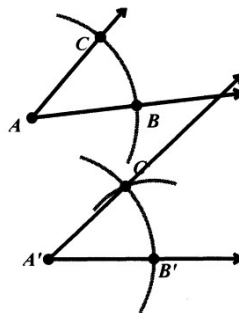
(c) Create the same arc by placing your pointer at A'. The intersection with the ray is B'.



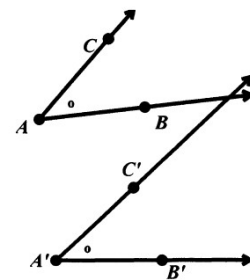
(d) Place your compass at point B and measure the distance from B to C. Use that distance to make an arc from B'. The intersection of the two arcs is C'.



(e) Draw the ray $\overrightarrow{A'C'}$

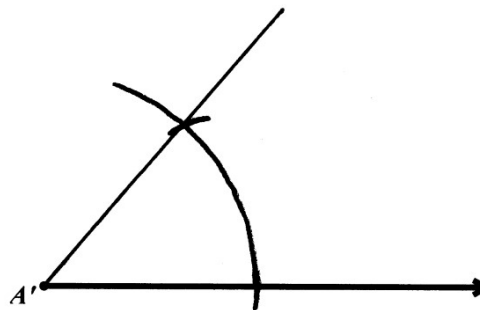
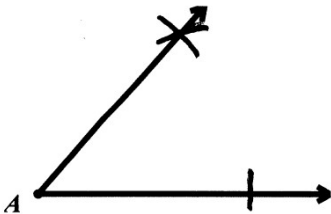


(f) The angle has been copied.



NYTS (Now You Try Some)

Copy the given angle.



4. Construct a line parallel to a given line through a point not on the line.

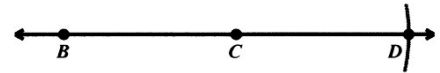
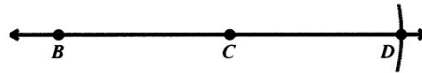
(a) Given a point not on the line.



(b) Place your pointer at point B and measure from B to C. Now place your pointer at C and use that distance to create an arc. Label that intersection D.



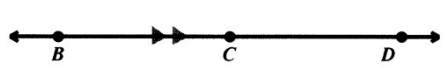
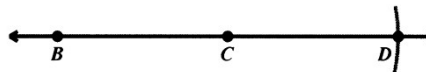
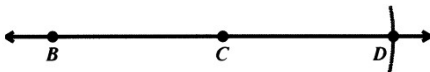
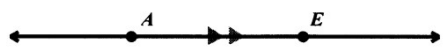
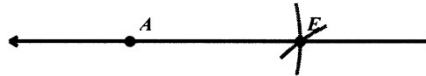
(c) Using that same distance, place your pointer at point A, and create an arc as shown.



(d) Now place your pointer at C, and measure the distance from C to A. Using that distance, place your pointer at D and create an arc that intersects the one already created. Label that point E.

(e) Create \overline{AE} .

(f) \overline{AE} is parallel to



NYTS (Now You Try Some)

Find the parallel line though the point not on the line.

