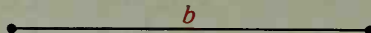
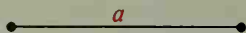


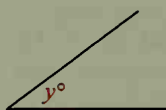
Written Exercises

On your paper, draw two segments roughly like those shown. Use these segments in Exercises 1–4 to construct a segment having the indicated length.



- A**
- $a + b$
 - $b - a$
 - $3a - b$
 - $a + 2b$
 - Using any convenient length for a side, construct an equilateral triangle.
 - a. Construct a 30° angle. b. Construct a 15° angle.
 - Draw any acute $\triangle ACU$. Use a method based on the SSS Postulate to construct a triangle congruent to $\triangle ACU$.
 - Draw any obtuse $\triangle OBT$. Use the SSS method to construct a triangle congruent to $\triangle OBT$.
 - Repeat Exercise 7, but use the SAS method.
 - Repeat Exercise 8, but use the ASA method.

On your paper, draw two angles roughly like those shown. Then for Exercises 11–14 construct an angle having the indicated measure.



- $x + y$
 - $x - y$
 - $\frac{3}{4}x$
 - $180 - 2y$
- B**
- Draw any acute triangle. Bisect each of the three angles.
 - Draw any obtuse triangle. Bisect each of the three angles.
 - What do you notice about the points of intersection of the bisectors in parts (a) and (b)?
 - Construct a six-pointed star using the following procedure.
 - Draw a ray, \overrightarrow{AB} . On \overrightarrow{AB} mark off, in order, points C and D such that $AB = BC = CD$.
 - Construct equilateral $\triangle ADG$.
 - On \overline{AG} mark off points E and F so that both AE and EF equal AB .
 - On \overline{GD} mark off points H and I so that both GH and HI equal AB .
 - To complete the star, draw the three lines \overleftrightarrow{FH} , \overleftrightarrow{EB} , and \overleftrightarrow{CI} .

Construct an angle having the indicated measure.

- 120
- 150
- 165
- 45
- Draw any $\triangle ABC$. Construct $\triangle DEF$ so that $\triangle DEF \sim \triangle ABC$ and $DE = 2AB$.
- Construct a $\triangle RST$ such that $RS:ST:TR = 4:6:7$.