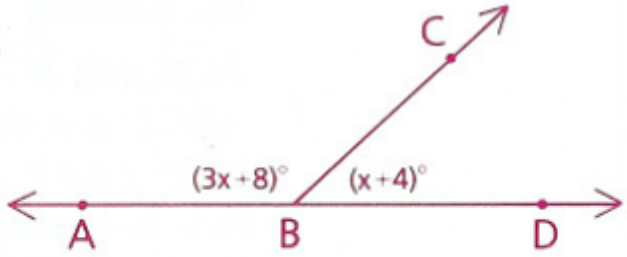
Homework

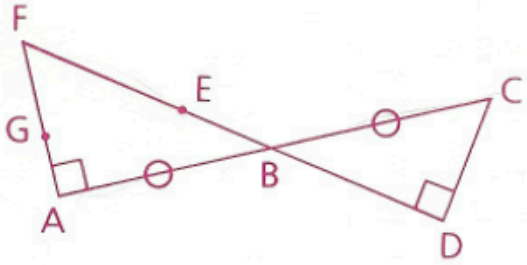
p. 20-22: 1-7 (not 3 g, h), 10, 12, 13, 15

1 Find m∠ABC (the measure of ∠ABC).



2 Draw a diagram showing four points, no three of which are collinear.

3



a Name all points collinear with E and F.

b Are G, E, and D collinear? Are F and C collinear?

c Which two segments do the tick marks indicate are congruent?

d Is ∠A ≅ ∠D?

e Is ∠F ≅ ∠ABF?

f Where do $\overleftrightarrow{AC}$ and $\overleftrightarrow{FE}$ intersect?

i B lies on a ray whose endpoint is E. Name this ray in all possible ways.

j Name all points between F and D.

4

a Should we assume that angles E, F, G, and H are right angles? Explain your answer.

b Should we assume that points E, F, and G are noncollinear? Explain your answer.

5 Draw a number line and shade all points that are at or between −5 and 2. Find the length of this shaded segment.

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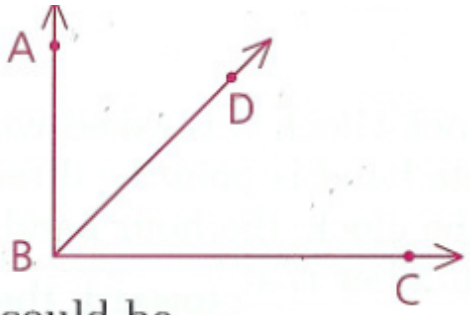
6 $\angle ABC$ is a right angle. The ratio of the measures of $\angle ABD$ and $\angle DBC$ is 3 to 2. Find $m\angle ABD$. (Hint: Let $m\angle ABD = 3x$ and $m\angle DBC = 2x$.)



7 Explain how the sum of two acute angles could be

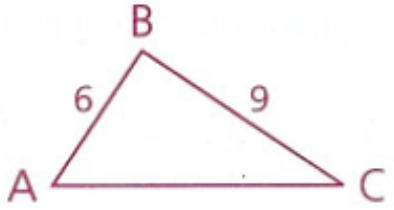
a Acute **b** Obtuse **c** Right

10 A, K, O, and Y are collinear points. K is between O and A, the length of $\overline{AO}$ added to the length of $\overline{AY}$ is equal to the length of $\overline{OY}$ (OA + AY = OY), and A is to the right of O. Draw a diagram that correctly represents this information.

12 If AB = 16, BC = 8, and AC = 24, which point is between the other two?

13 **a** AC must be smaller than what number?

b AC must be larger than what number?



15 Given: $m\angle 1 = 2x + 40$,
$m\angle 2 = 2y + 40$,
$m\angle 3 = x + 2y$

Find: $m\angle 1$, $m\angle 2$, and $m\angle 3$