

4-5 Practice

Isosceles and Equilateral Triangles

Form G

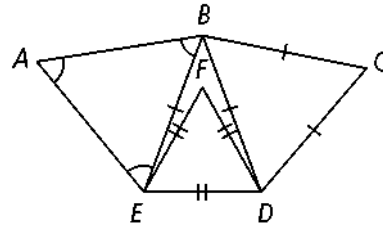
Complete each statement. Explain why it is true.

1. $\angle DBC \cong \underline{\hspace{1cm}} \cong \angle CDB$

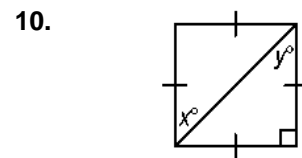
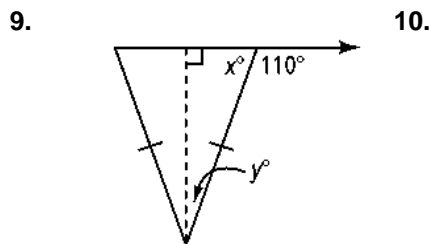
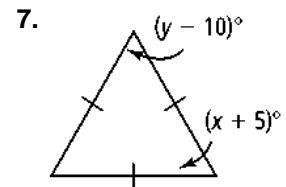
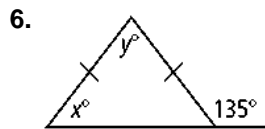
2. $\angle BED \cong \underline{\hspace{1cm}}$

3. $\angle FED \cong \underline{\hspace{1cm}} \cong \angle DFE$

4. $AB \cong \underline{\hspace{1cm}} \cong \overline{BE}$

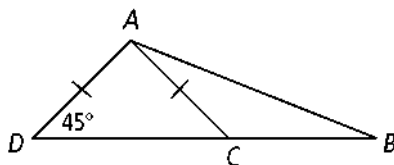


Algebra Find the values of x and y .

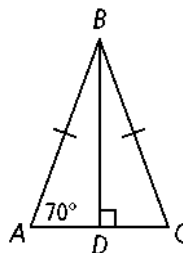


Use the properties of isosceles and equilateral triangles to find the measure of the indicated angle.

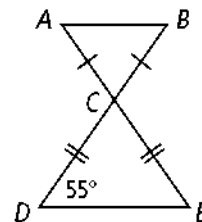
11. $m\angle ACB$



12. $m\angle DBC$



13. $m\angle ABC$



14. Equilateral $\triangle ABC$ and isosceles $\triangle DBC$ share side BC . If $m\angle BDC = 34$ and $BD = BC$, what is the measure of $\angle ABD$? (Hint: it may help to draw the figure described.)

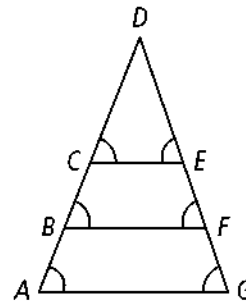
4-5

Practice (continued)

Form G

Isosceles and Equilateral Triangles

Use the diagram for Exercises 15–17 to complete each congruence statement. Explain why it is true.



15. $\overline{DF} \cong \underline{\hspace{1cm}} ?$

16. $\overline{DG} \cong \underline{\hspace{1cm}} ?$

17. $\overline{DG} \cong \underline{\hspace{1cm}} ?$

- 19. Reasoning** An exterior angle of an isosceles triangle has the measure 130.
Find two possible sets of measures for the angles of the triangle.

Algebra Find the values of m and n .

