

4-5 Practice

Isosceles and Equilateral Triangles

Form G

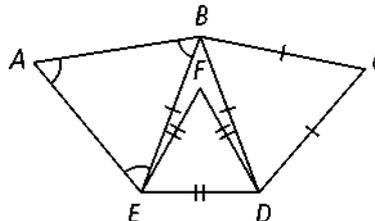
Complete each statement. Explain why it is true.

1. $\angle DBC \cong \underline{\quad ? \quad} \cong \angle CDB$

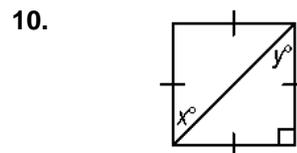
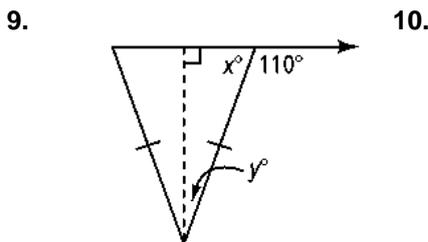
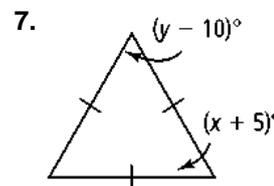
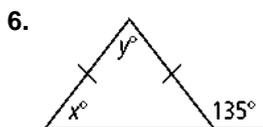
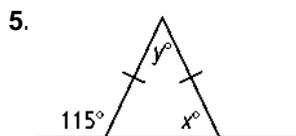
2. $\angle BED \cong \underline{\quad ? \quad}$

3. $\angle FED \cong \underline{\quad ? \quad} \cong \angle DFE$

4. $AB \cong \underline{\quad ? \quad} \cong \overline{BE}$

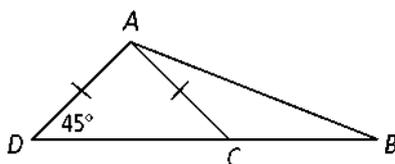


Algebra Find the values of x and y .

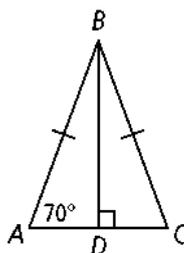


Use the properties of isosceles and equilateral triangles to find the measure of the indicated angle.

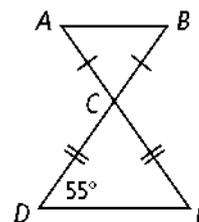
11. $m\angle ACB$



12. $m\angle DBC$



13. $m\angle ABC$



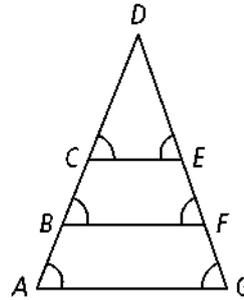
14. Equilateral $\triangle ABC$ and isosceles $\triangle DBC$ share side BC . If $m\angle BDC = 34$ and $BD = BC$, what is the measure of $\angle ABD$? (Hint: it may help to draw the figure described.)

4-5 Practice (continued)

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



15. $\overline{DF} \cong \underline{\quad ? \quad}$

16. $\overline{DG} \cong \underline{\quad ? \quad}$

17. $\overline{DG} \cong \underline{\quad ? \quad}$

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 .

