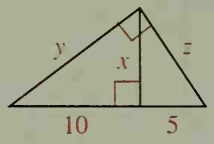
Chapter Review

1. Find the geometric mean between 12 and 3. **8–1**

2. x = ?

3. y = ?

4. z = ?



5. The legs of a right triangle are 3 and 6. Find the length of the hypotenuse. **8–2**

6. A rectangle has sides 10 and 8. Find the length of a diagonal.

7. The diagonal of a square has length 14. Find the length of a side.

8. The legs of an isosceles triangle are 10 units long and the altitude to the base is 8 units long. Find the length of the base.

Tell whether a triangle formed with sides having the lengths named is acute, right, or obtuse. If a triangle can't be formed, write *not possible*.

9. 4, 5, 6 **8–3**

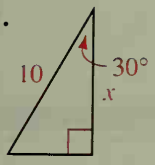
10. 8, 8, 17

11. 11, 60, 61

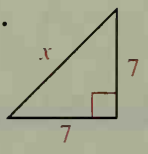
12. $2\sqrt{3}$, $3\sqrt{2}$, 6

Find the value of x.

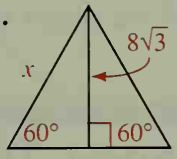
13. **8–4**



14.



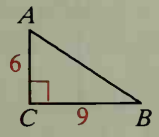
15.



16. The legs of an isosceles right triangle have length 12. Find the lengths of the hypotenuse and the altitude to the hypotenuse.

Complete. Find angle measures and lengths correct to the nearest integer. Use a calculator or the table on page 311 if needed.

17. **8–5**

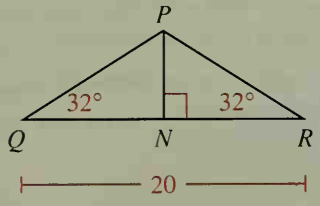


a. tan A = ?

b. tan B = ?

c. $m\angle B \approx$?

18.



a. QN = ?

b. $PN \approx$?