

Name: _____

Date: _____

Class: _____

30-60-90 Right Triangles and Algebra Worksheet

The length of the hypotenuse of a 30° — 60° — 90° triangle is given. Find the length of the side opposite the 30° angle in each triangle.

1. 8 m

2. 16 cm

3. 13 mm

4. 9 mi

5. $4\frac{1}{2}$ in.

6. $3\frac{3}{8}$ in.

7. 16.36 m

8. 4.63 cm

The length of the side opposite the 30° angle in a 30° — 60° — 90° triangle is given. Find the length of the hypotenuse in each triangle.

9. 7 m

10. 6.2 cm

11. 4.35 mm

12. $4\frac{1}{2}$ mi

13. $6\frac{3}{8}$ in.

14. 13 m

15. 3.86 cm

16. $7\frac{3}{4}$ in

The length of the side opposite the 60° angle in 30° — 60° — 90° triangle is given. Find the length of the other two sides in each triangle.

17. $4\sqrt{3}$ ft

18. $2\sqrt{3}$ cm

19. $8\sqrt{3}$ m

20. $\sqrt{3}$ mi

21. $7\sqrt{3}$ yd

22. $9\sqrt{3}$ mm