Special Right Triangles 30°- 60°- 90° Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pd: \_\_\_

Complete the table:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8.cab30°60° |
| a | **10** |  |  | $$6\sqrt{2}$$ |  |  |  |  |
| b |  |  | $$6\sqrt{3}$$ |  |  | $$15$$ |  |  |
| c |  | $$24$$ |  |  | $$7\sqrt{3}$$ |  | **12** | **2**$\sqrt{2}$ |

**? \_\_\_\_**

**6**$\sqrt{3}$

**? \_\_\_\_**

**30°**

**? \_\_\_\_**

**14**

**? \_\_\_\_**

**60°**

**? \_\_\_\_**

**6**

**? \_\_\_\_**

**60°**

9. 10. 11.

**? \_\_\_\_**

**8**$\sqrt{5}$

**? \_\_\_\_**

**30°**

**? \_\_\_\_**

**5**$\sqrt{6}$

**? \_\_\_\_**

**60°**

**? \_\_\_\_**

**4**

**? \_\_\_\_**

**60°**

12. 13. 14.

**x**

**8**$\sqrt{3}$

**y**

**60°**

**10**

**x**

**y**

**60°**

15. 16.

X = \_\_\_\_\_\_\_\_\_\_\_\_ X = \_\_\_\_\_\_\_\_\_\_\_\_

Y = \_\_\_\_\_\_\_\_\_\_\_\_ Y = \_\_\_\_\_\_\_\_\_\_\_\_

17. 18.

y

60°

x

9

**20**

**x**

**y**

**30°**

X = \_\_\_\_\_\_\_\_\_\_\_\_ X = \_\_\_\_\_\_\_\_\_\_\_\_

Y = \_\_\_\_\_\_\_\_\_\_\_\_ Y = \_\_\_\_\_\_\_\_\_\_\_\_

Use the properties of both 45°- 45°- 90° and 30°- 60°- 90° special right triangles to find the values of x & y.

21. 23.

45°

30°

x

y

6

60°

30°

x

y

8

X = \_\_\_\_\_\_\_\_\_\_\_\_ X = \_\_\_\_\_\_\_\_\_\_\_\_

Y = \_\_\_\_\_\_\_\_\_\_\_\_ Y = \_\_\_\_\_\_\_\_\_\_\_\_

24.

12

x

y

30°

X = \_\_\_\_\_\_\_\_\_\_\_\_

Y = \_\_\_\_\_\_\_\_\_\_\_\_