Various Methods for Determining Sides on Triangles

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| Pythagorean Theorem | Similar Triangles | Special Triangles | Trigonometry |
| What you want:  To find a side length  What you need:  A right triangle  & 2 of the sides  Formula: | What you want:  To find a side length  What you need:  2 triangles  To know triangles are ~  Setup Example:   |  |  |  |  | | --- | --- | --- | --- | | Scale | 1st | Last | Out | |  |  |  |  | |  |  |  |  | | OR    What you want:  To find a side length  What you need:  30-60-90 or 45-45-90  1 of the sides | What you want:  To find a side length  What you need:  A right triangle  1 other angle  1 of the sides  Formulas: |

For each problem, decide which method from above will solve the problem, then solve it.

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| --- | --- | --- | --- |
| 1. | 2. | 3. | 4. |
| 5. | 6. | 7. | 8. |
| 9. | 10. | 11. | 12. |
| 13. | 14. | 15. | 16. |