

Answer Key

Right Triangles

Find the indicated lengths.

- $x = 10$
- $x = 15$
- $x = 24$
- $x = 20$
- $x = 21\sqrt{4}$
- $x = 5\sqrt{2}$
- $x = 3\sqrt{2}$
- $x = 4$
- $x = 15$
- $x = 3\sqrt{2}$
- $x = 3\sqrt{3}$
- $x = 8$

13. To go from Dulles to Loudon, you can travel along the two main highways. How long is the highway route?
 a. How long is the "short route" (road route)?
 b. How long is the "long route" (road route)?
 c. How many miles do you save by taking the direct route?
 84 miles
 24 miles

Special Right Triangles

Find the missing side.

- $3\sqrt{2}$
- $2\sqrt{3}$
- 10
- 4
- 5
- $6\sqrt{3}$
- $3\sqrt{3}$
- $5\sqrt{2}$
- $2\sqrt{3}$
- 5
- $2\sqrt{2}$
- $3\sqrt{2}$
- $2\sqrt{3}$
- $4\sqrt{3}$
- $5\sqrt{2}$

Answers to Reflections and Rotations HW #1 (ID: 1)

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Right Triangle Trigonometry

1. $\sin \theta = 3/5$, $\tan \theta = 4/3$, $\csc \theta = 5/3$, $\sec \theta = 5/4$
 2. $\sqrt{2}/2$, $1/\sqrt{2}$, $1/\sqrt{2}$, $\sqrt{2}$
 3. $1/\sqrt{3}$, $1/\sqrt{3}$, 2 , $2\sqrt{3}$, $5/3$, $5/3$, $3/4$, $\sqrt{3}$
 4. $4/5$, $3/5$, $4/3$, $5/4$, $5/3$, $5/3$, $3/4$
 5. $5/13$, $12/13$, $5/12$, $13/5$, $13/12$, $12/5$
 6. $\sqrt{2}/2$, $1/\sqrt{2}$, $1/\sqrt{2}$, $\sqrt{2}$, $17/15$, $5/3$, $5/4$, $8/15$
 7. $15/17$, $8/17$, $3/4$, $15/8$, $17/15$, $17/8$, $4/3$
 8. $3/5$, $15/17$, $8/17$, $15/8$, $17/15$, $17/8$, $8/15$
 9. $15/17$, $8/17$, $3/4$, $15/8$, $17/15$, $17/8$, $8/15$
 10. $12/13$, $5/13$, $14/5$, $13/12$, $13/5$, $5/12$
 11. $1/\sqrt{2}$
 12. $1/\sqrt{2}$

Fun and Games

Transformation

Three Basic Movements

- Translation (slid)
- Rotation (turn)
- Reflection (flip)

Which single basic motion will make these figures coincide?

- ref.
- rot.
- trans.
- ref.
- ref.
- trans.
- ref.
- rot.
- rot.
- ref.
- trans.
- trans.