## Test 25

1. E : AAA, because sides may be different lengths
2. D : They are congruent.
3. A : prove the triangles congruent
4. C : the midpoint
5. B : If one set of corresponding sides are congruent, the triangles may be proved congruent by ASA or AAS.
6. A : $\angle JKZ \cong \angle XKZ$
7. C : parallelogram
8. E : ASA
9. B : congruent
10. A : reflexive property
11. D : definition of a bisector
12. B : $\overline{RV} \cong \overline{TV}$
13. E : definition of a parallelogram
14. C : alternate interior angles
15. A : ASA

## Test 26

1. E : one congruent angle is already given
2. B : Pythagorean theorem
3. D : SSS
4. A : SAS
5. B : AAS
6. B : HA
7. C : definition of a rectangle
8. B : opposite sides of a rectangle are congruent (APT)
9. C : reflexive property
10. A : HL
11. E : definition of a midpoint
12. B : $\overline{MQ} \cong \overline{MQ}$
13. D : LL
14. A : $\overline{PM} \cong \overline{RM}$ : CPCTRC
     For #14 and #15, you may not assume the figure is a rectangle.

15. B : $\angle$NRQ is a right angle: all others may be proved congruent with CPCTRC.

## Test 27

1. C : have the same shape but not the same size
2. A : corresponding sides are congruent
3. B : two sets of congruent angles
4. C : ratio of short legs is also $\frac{1}{3}$
5. D : similar
6. A : $\frac{8}{10} = \frac{4}{5}$
7. D : they are similar:
     $\frac{3}{6}$, $\frac{5}{10}$, and $\frac{6}{12}$ all $= \frac{1}{2}$
8. C : two congruent angles proves similarity, not congruence
9. E : $\frac{2}{10} = \frac{1}{5}$
10. E : reflexive property
11. B : perpendicular lines form right angles
12. A : $\triangle XSY$ and $\triangle RSQ$ are similar by AA
13. E : vertical angles
14. A : alternate interior angles
15. C : AA postulate

## Test 28

1. C : moving and changing shapes on a grid
2. A : translation
3. E : reflection
4. B: dilation
5. C : flipped
6. A : rotation
7. E : counterclockwise
8. A : degrees
9. C : reflection

10. B: translation of 5 spaces
11. C: rotation of 90° around
the origin
12. A: R
13. E: none
14. D: V; Each point on figure Q has
been moved to the left 5 and up 2.
15. B: S; Q has been translated and
rotated, so its transformation
includes rotation.

## Test 29

1. A: triangles
2. C: right
3. D: cosine
4. A: tangent
5. E: none of the above
6. B: $\dfrac{B}{C}$
7. B: $\dfrac{A}{B}$
8. E: $\dfrac{A}{C}$
9. A: $\dfrac{5\sqrt{3}}{10} = \dfrac{\sqrt{3}}{2}$
10. A: $\dfrac{5\sqrt{3}}{10} = \dfrac{\sqrt{3}}{2}$
11. D: $\dfrac{5}{5\sqrt{3}} = \dfrac{1}{\sqrt{3}} = \dfrac{\sqrt{3}}{\sqrt{3}\sqrt{3}} =$
$\dfrac{\sqrt{3}}{\sqrt{9}} = \dfrac{\sqrt{3}}{3}$
12. C: 30°
13. C: $\dfrac{4}{5}$
14. A: $\dfrac{3}{5}$
15. B: $\dfrac{3}{4}$

## Test 30

1. B: cosecant
2. D: secant
3. B: cotangent
4. E: none of the above:
it is the cotangent
5. A: secant
6. C: cosecant
7. D: $\dfrac{C}{A}$
8. B: $\dfrac{A}{C}$
9. A: $\dfrac{C}{A}$
10. C: $\dfrac{2\sqrt{3}}{2} = \dfrac{\sqrt{3}}{1} = \sqrt{3}$
11. E: $\dfrac{4}{2} = 2$
12. B: $\dfrac{4}{2} = 2$
13. D: $\sin^2\theta + \cos^2\theta = 1$
14. E: $\dfrac{4\sqrt{2}}{4} = \dfrac{\sqrt{2}}{1} = \sqrt{2}$
15. C: $\dfrac{4}{4} = 1$