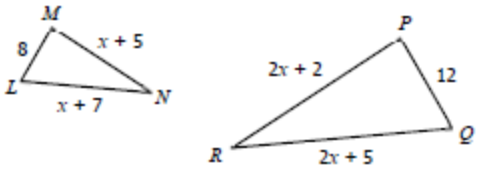
Geometry Review

QUIZ 4

Name: _____

Date: _____ Per: _____

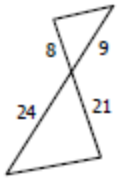
1. Given: $\Delta LMN \sim \Delta QPR$, find RQ.



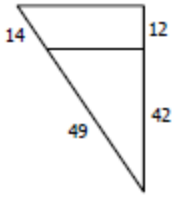
A. 11
B. 24
C. 27
D. 32

2. Which pair of triangles are similar?

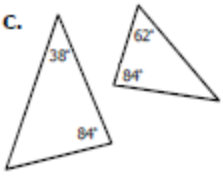
A.



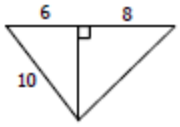
B.



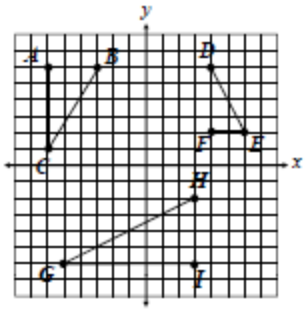
C.



D.

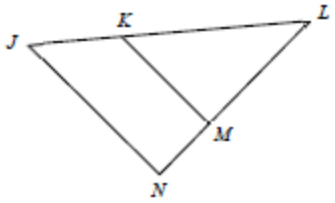


3. Using the triangles shown below, which statement is true?



A. $\Delta ABC \sim \Delta FED$
B. $\Delta DFE \sim \Delta HIG$
C. $\Delta ABC \sim \Delta HIG$
D. $\Delta DFE \sim \Delta GIH$

4. Which condition would not prove $\Delta KML \sim \Delta JNL$?



A. $\angle LKM \cong \angle LJN$
B. $\frac{KM}{JN} = \frac{KL}{ML}$
C. $\overline{JN} \parallel \overline{KM}$
D. $\frac{KL}{JL} = \frac{ML}{NL}$

5. Which side lengths form a right triangle? Check all that apply.

- ☐ 10, 13, 17
- ☐ 12, 35, 37
- ☐ 6.5, 7.2, 9.7
- ☐ 15, 15, 22
- ☐ 11, 20.5, 23.8

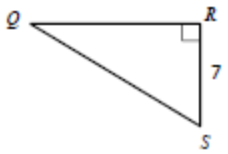
6. A rectangle with a length of 15 feet has a diagonal that measures 17 feet. Find the perimeter of the rectangle.

A. 46 feet
B. 32 feet
C. 58 feet
D. 64 feet

7. If the diagonals of a square measure 24 meters, what is the length of a side of the square?

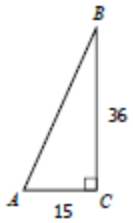
A. $8\sqrt{2}$ meters
B. $10\sqrt{2}$ meters
C. $12\sqrt{2}$ meters
D. $24\sqrt{2}$ meters

8. In ΔQRS, if $m\angle Q = 30^\circ$, what must be the length of $\overline{QR}$?



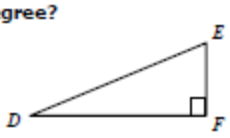
A. 14
B. $7\sqrt{3}$
C. $7\sqrt{2}$
D. $14\sqrt{3}$

9. Given ΔABC, which of the following ratios is equivalent to $\cos B$?



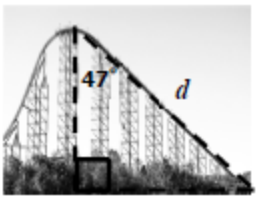
A. $\frac{5}{13}$
B. $\frac{13}{5}$
C. $\frac{12}{13}$
D. $\frac{13}{12}$

10. Given ΔDEF, if $DE = 50$ inches and EF = 19 inches, what is $m\angle D$ to the nearest tenth of a degree?



A. 16.1°
B. 18.5°
C. 20.7°
D. 22.3°

11. If the vertical height of the rollercoaster below is 315 feet, find d to the nearest foot.



A. 448 feet
B. 462 feet
C. 475 feet
D. 492 feet

12. Kurt is flying his airplane over a campground. He spots a small fire below at an angle of depression of 32°. If the horizontal distance from Kurt's plane to the fire is 3600 feet, find the approximate altitude of his plane.

A. 2,250 feet
B. 2,575 feet
C. 2,825 feet
D. 3,150 feet