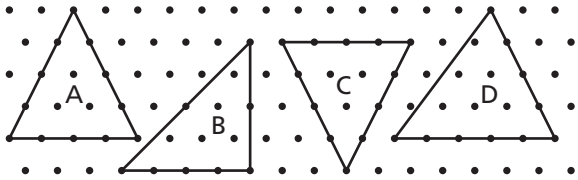
Name _____ Date _____ Class _____

GRADE 10

Focus on Sunshine State Standards: Benchmark Tests

MA.912.G.4.6 Benchmark Pre-Test (Multiple Choice)

1. Which two triangles are congruent?



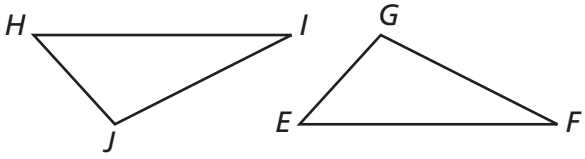
A. A and B

B. B and C

C. A and C

D. C and D

These two triangles are congruent. Use the triangles for questions 2 and 3.



2. Which angle has the same measure as $\angle E$?

F. $\angle G$

G. $\angle H$

H. $\angle I$

I. $\angle J$

3. Which side of triangle *EFG* corresponds to $\overline{HJ}$?

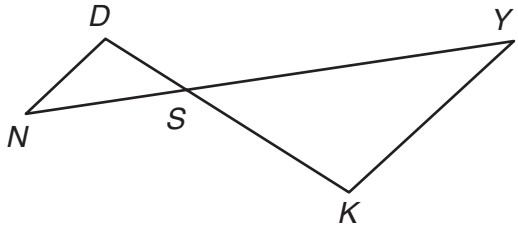
A. $\overline{EF}$

B. $\overline{EG}$

C. $\overline{FG}$

D. $\overline{FE}$

ΔDNS and ΔKYS are similar. Use the triangles for problems 4 and 5.



4. Which angle has the same measure as $\angle DNS$?

F. $\angle YKS$

G. $\angle SYK$

H. $\angle DSN$

I. $\angle YSK$

5. The ratio of $\overline{NS}$ to side $\overline{YS}$ is 1:2. What is the ratio of $\overline{ND}$ to $\overline{YK}$?

A. 1:2

B. 2:1

C. 2:3

D. 2:4

6. Which set of side lengths will make a triangle similar to one with sides of 6 cm, 6 cm, and 6 cm?

F. 2 cm, 2 cm, and 2 cm

G. 2 cm, 3 cm, and 6 cm

H. 3 cm, 3 cm, and 6 cm

I. 3 cm, 6 cm, and 6 cm

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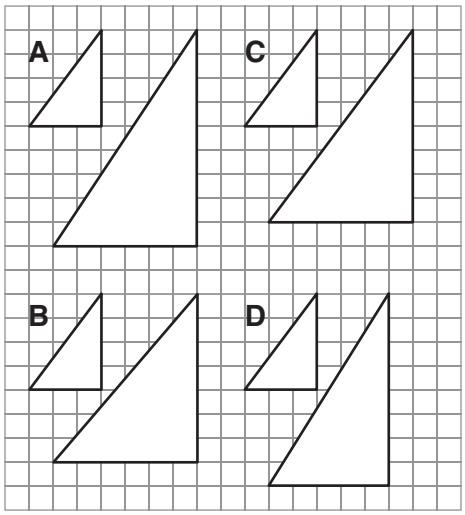
7. Which pair of triangles is similar?



8. If two figures are similar, which describes the corresponding angles?

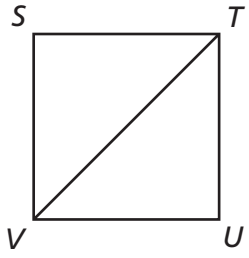
F. similar

G. congruent

H. proportional

I. parallel

9. The diagram below shows a square and one of its diameters.



Which statement is *not* true?

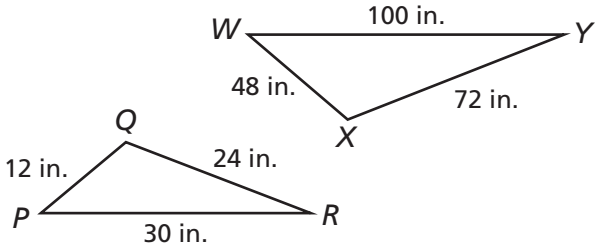
A. $\Delta VST \cong \Delta VUT$

B. $m\angle S = m\angle U$

C. $\overline{TV} \cong \overline{VT}$

D. $m\angle STV = m\angle TUV$

10. Use the triangles below.



Is ΔPQR similar to ΔWXY?

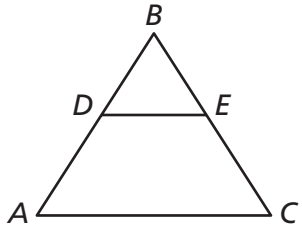
F. No, because the ratios of the side lengths are not all the same.

G. Yes, because the ratios of the side lengths are all the same.

H. No, because the angle measures are not given.

I. Yes, because corresponding angles are equal.

11. $\Delta DBE \sim \Delta ABC$. The ratio of the side lengths is 1:3. What is the length of $\overline{DE}$ if $\overline{AC}$ is 15 feet?



A. 3 feet

B. 5 feet

C. 45 feet

D. 75 feet

12. What is the perimeter of ΔABC if the perimeter of ΔDBE is 12 feet?

F. 48 feet

G. 36 feet

H. 4 feet

I. 3 feet