TEST NAME: **Study Guide for 7 G2 and 7 G 5 test**
TEST ID: **2264879**
GRADE: **07 - Seventh Grade**
SUBJECT: **Mathematics**
TEST CATEGORY: **School Assessment**

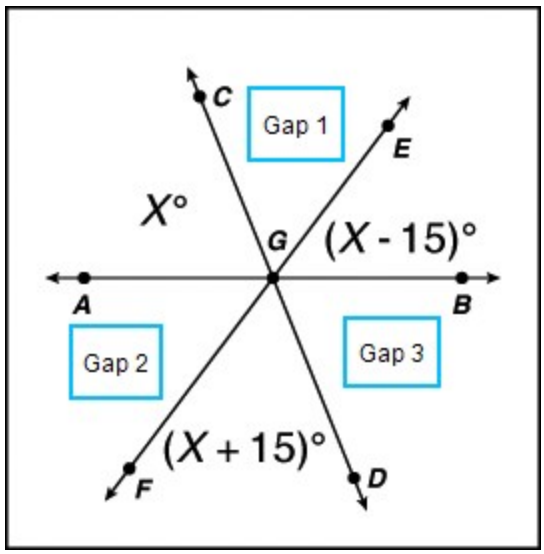
Student: _____

Class: _____

Date: _____

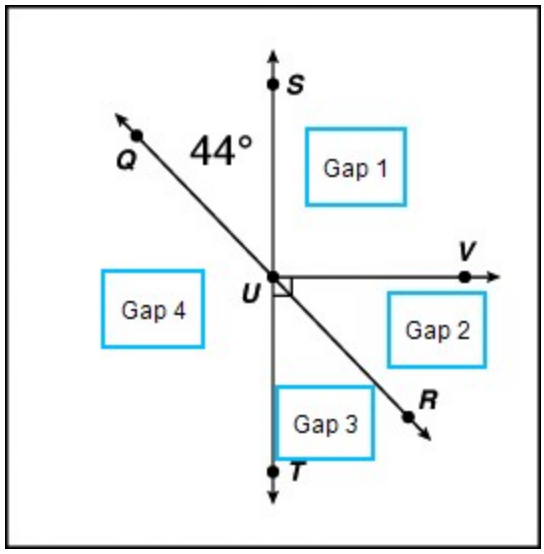
1. **Lines *AB*, *CD*, and *EF* intersect at Point *G*. For each of the angles without an expression or variable angle measure, place the correct measure into the drawing.**

15° | 30° | 45° | 60° | 75° | 90° | 105°



2. **Lines *QR* and *ST* and Ray *UV* intersect at Point *U*. For each of the angles without an angle measure, place the correct measure into the drawing.**

| | | | | | |
|---|---|---|---|---|---|
| 44° | 45° | 46° | 90° | 91° | 92° |
| 134° | 135° | 136° | | | |




3. **Select the answer from the menu.**

**If two sides of a triangle are 4 and 6 inches long, the third side of the triangle could measure**

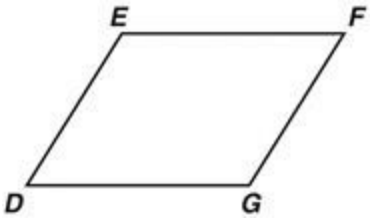
1 .

4. **Select the answer from the menu.**

**If two sides of a triangle are equal to 4 inches, the third side of the triangle must be**

1 .

5. **Figure *DEFG* is a parallelogram.**




**If** $m \angle D = 30°$, **what is** $m \angle E$?

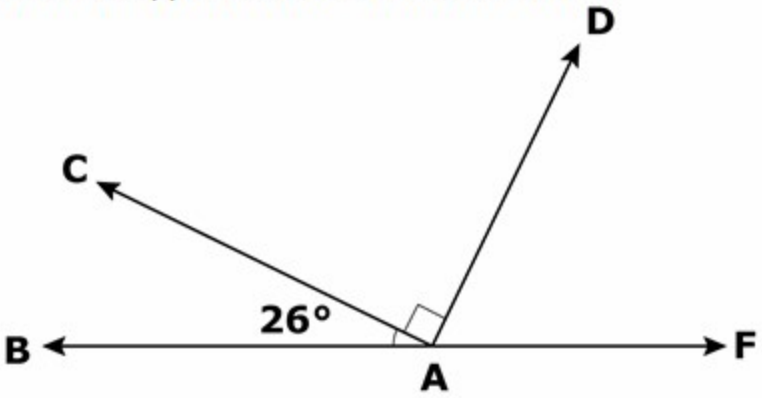
A. $30°$

B. $60°$

C. $120°$

D. $150°$

6. Find the complement and supplement of ∠DAF and ∠CAB.

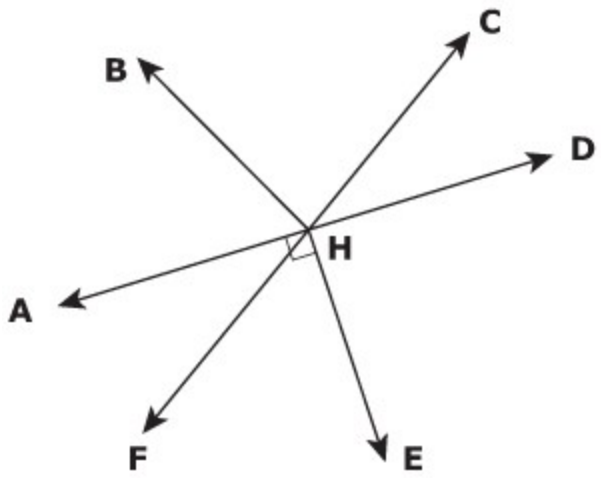



Click and drag the angle measures into the table.

| | | |
|---|---|---|
| 180° | 154° | 116° |
| 90° | 64° | 26° |

| | |
|---|---|
| Complement of ∠DAF | Complement of ∠CAB |
| Supplement of ∠DAF | Supplement of ∠CAB |

7. In the diagram, $m\angle BHC$ is twice $m\angle CHD$, $m\angle BHA = 39°$, $\overline{AD}$ and $\overline{FC}$ intersect at point *H*, and $\overline{AD} \perp \overline{EH}$.



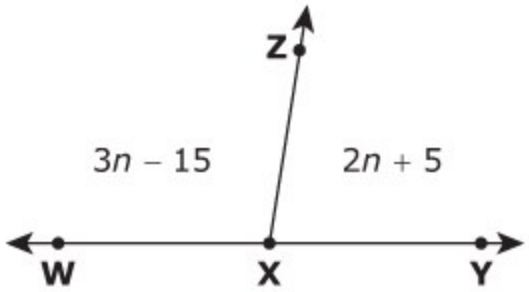

Not Drawn to Scale

Part A What is $m\angle BHC$? Show or explain your work.

Part B What is $m\angle AHF$? Show or explain your work.

Part C What is $m\angle FHE$? Show or explain your work.

8. In the figure below, $\overrightarrow{XZ}$ extends from $\overleftrightarrow{WY}$.




What is $m\angle YXZ$?

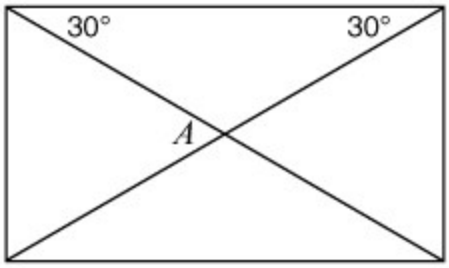
A. 45°

B. 81°

C. 87°

D. 99°

9. Look at the rectangle below.




The sum of the measures of the 3 interior angles of any triangle is always 180°. What is the measure of $\angle A$?

A. 30°

B. 45°

C. 60°

D. 120°

10. Which set of side lengths could be used to create a triangle?

A. 1 ft, 2 ft, 3 ft

B. 3 ft, 4 ft, 5 ft

C. 8 ft, 8 ft, 17 ft

D. 10 ft, 15 ft, 25 ft

11. Which set of side length measurements would ***not*** create a triangle?

A. 4 cm, 8 cm, 12 cm

B. 4 cm, 6 cm, 9 cm

C. 6 cm, 7 cm, 12 cm

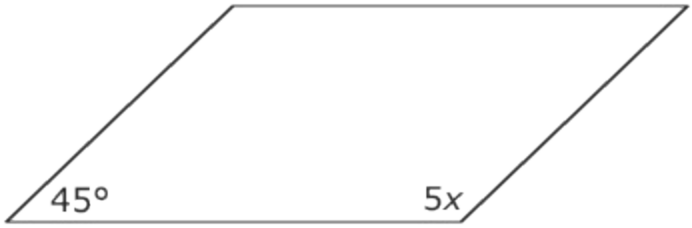
12. Two angles of a triangle measure 30° and 108°. What is the measure of the third angle of the triangle?

A. 42°

B. 45°

C. 62°

13. The figure below is a parallelogram.




What is the value of $x$?

A. 9

B. 27

C. 36

14. Which could be the side lengths of an isosceles triangle?

A. 2 inches, 2 inches, and 5 inches

B. 2 inches, 3 inches, and 4 inches

C. 2 inches, 3 inches, and 3 inches

D. 3 inches, 3 inches, and 6 inches

15. Which set of angle measures could be the interior angles of a triangle?

A. 25°, 30°, 35°

B. 35°, 60°, 75°

C. 45°, 60°, 75°

D. 60°, 90°, 120°

16. Carol drew an isosceles triangle that has an angle that measures 62°. Which could be the measures of the other two angles in Carol's triangle?

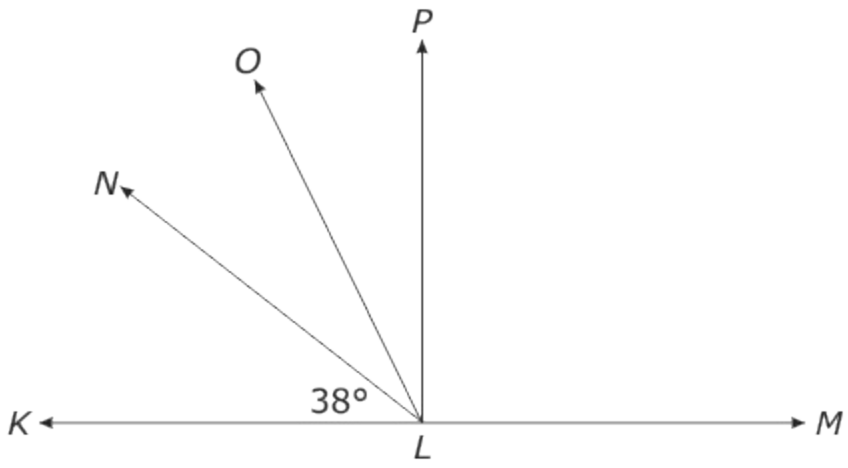
A. 28° and 90°

B. 56° and 56°

C. 56° and 62°

D. 62° and 62°

17. In the figure below, $\angle KLP$ is a right angle. $\angle NLO$ and $\angle OLP$ are congruent angles.




What is the measure of $\angle OLP$?

A. 52°

B. 45°

C. 30°

D. 26°

18. One side of a triangle measures 14 cm. Another side of the same triangle measures 6 cm. Which inequalities represent all possible lengths of the third side, $x$?

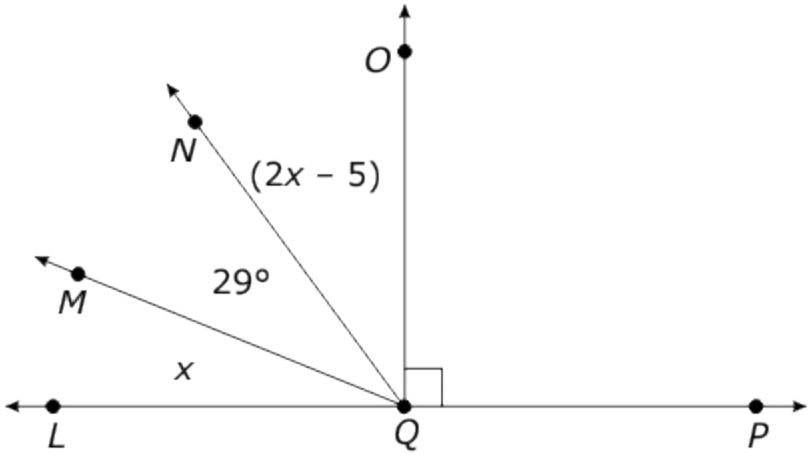
A. $x > 6$ and $x <>$

B. $x \geq 6$ and $x \leq 14$

C. $x > 8$ and $x <>$

D. $x \geq 8$ and $x \leq 20$

19. In the figure below, $\angle OQP$ is a right angle.




What is the measurement of $\angle LQM$?

A. 19°

B. 22°

C. 31°

D. 38°

20. Angles 1 and 2 are supplementary. Angle 2 is $\frac{1}{5}$ the size of angle 1. What are the degree measurements of each angle?

A. $\angle 1 = 15°$ and $\angle 2 = 75°$

B. $\angle 1 = 150°$ and $\angle 2 = 30°$

C. $\angle 1 = 18°$ and $\angle 2 = 90°$

D. $\angle 1 = 30°$ and $\angle 2 = 150°$

21. Ms. Warren had each student take 3 pencils and create a triangle with them. Roberto has 3 pencils that measure 12 cm, 5 cm, and 7 cm. How many triangles can Roberto create with his 3 pencils?

A. infinitely many

B. two

C. one

D. none

22. An isosceles triangle has an angle that measures 100°. What is the measure of one of the other angles in the isosceles triangle?

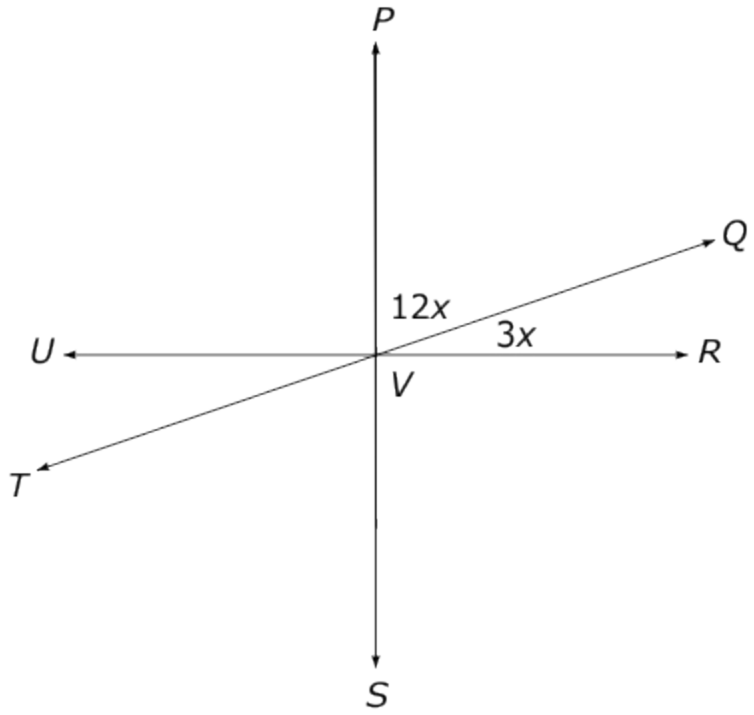
A. 40°

B. 60°

C. 80°

D. 100°

23. In the figure below, line *PS* is perpendicular to line *UR*.




What is the measure of $\angle PVQ$?

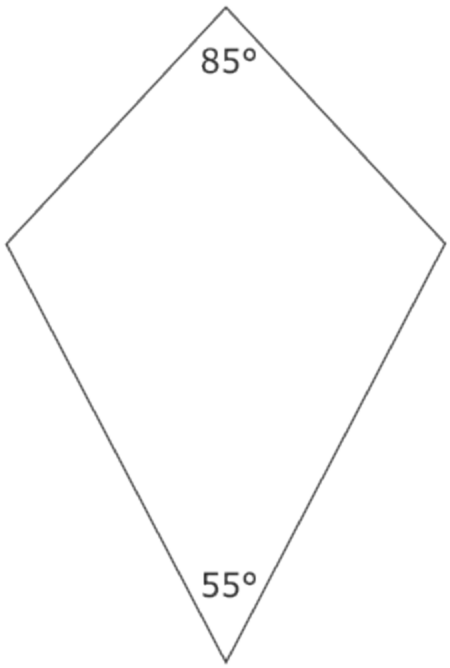
A. 25°

B. 45°

C. 68°

D. 72°

24. William is making a kite. The top interior angle is 85°, and the bottom interior angle is 55°. The side angles are congruent.




What is the measure of each side angle?

A. 20°

B. 70°

C. 110°

D. 220°

25. The larger of two complementary angles is 10 degrees more than the smaller angle. What is the degree measure of the larger angle?

A. 40°

B. 50°

C. 85°

D. 95°

26. Amanda is using colored sticks to make a triangle for a class project. Each colored stick has a different measurement as shown in the table below.

| Stick Color | Length of Each Stick (inches) |
|---|---|
| Red | 2 |
| Blue | 3 |
| Yellow | 4 |
| Green | 6 |
| Brown | 8 |

Which combination of sticks could be used to create a triangle?

A. two red sticks and one yellow stick

B. two blue sticks and one brown stick

C. one red stick, one blue stick, and one green stick

D. one blue stick, one yellow stick, and one green stick

27. Figure *WXYZ* is a parallelogram.


What is the measure of angle *X*?

A. 115°

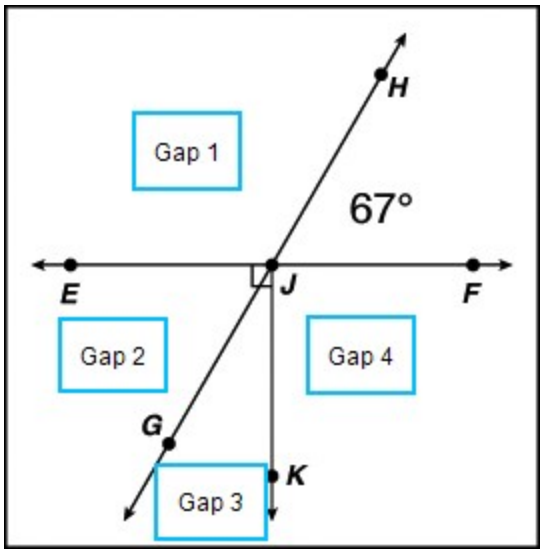
B. 100°

C. 80°

D. 65°

28. **Lines *EF* and *GH* and Ray *JK* intersect at Point *J*. For each of the angles without an angle measure, place the correct measure into the drawing.**

| | | | | | |
|---|---|---|---|---|---|
| 8° | 23° | 30° | 59° | 60° | 67° |
| 83° | 90° | 113° | 120° | | |




29. Draw and label

1) A pair of complementary angles one of the angles measures 28 degrees, what is the measure of its complement?

2) A pair of supplementary angles, one of the angles measures 55 degrees, what is the measure of its supplement?

3) A pair of vertical angles one of the angles measures 41 degrees- write the measure of all of the angles in your picture

4) A pair of perpendicular lines- label the angle measures