

4.MD.C.7 Angles Addition

4.MD.C.7: Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles

Give what is asked in each item and then write your answers on the space provided.

1. Write the sum of the internal angles of each of the polygons listed below.

- a. hexagon _____
- b. triangle _____
- c. heptagon _____
- d. pentagon _____

2. Write Yes if the set of angles can form a triangle and write No if otherwise.

- a. $30^\circ, 60^\circ, 90^\circ$ _____
- b. $40^\circ, 60^\circ, 90^\circ$ _____
- c. $130^\circ, 60^\circ, 90^\circ$ _____
- d. $110^\circ, 60^\circ, 90^\circ$ _____
- e. $50^\circ, 40^\circ, 90^\circ$ _____
- f. $55^\circ, 55^\circ, 70^\circ$ _____

3. Write Yes if the set of angles can form a quadrilateral and write No if otherwise.

- a. $50^\circ, 60^\circ, 100^\circ, 150^\circ$ _____
- b. $70^\circ, 60^\circ, 110^\circ, 120^\circ$ _____
- c. $50^\circ, 60^\circ, 150^\circ, 150^\circ$ _____
- d. $50^\circ, 40^\circ, 120^\circ, 150^\circ$ _____
- e. $50^\circ, 60^\circ, 100^\circ, 100^\circ$ _____
- f. $50^\circ, 50^\circ, 170^\circ, 150^\circ$ _____

4. Write the sum of the internal angles of each of the following figures.





5. The two angles of a right triangle are 50° and 40° . What is the third one? _____

6. The three angles of a quadrilateral are 150° , 50° , and 50° . What is the fourth one? _____

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Answer Key

4.MD.C.7: Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles

Give what is asked in each item and then write your answers on the space provided.

1. Write the sum of the internal angles of each of the polygons listed below.

- a. hexagon 720°
- b. triangle 180°
- c. heptagon 900°
- d. pentagon 540°

2. Write Yes if the set of angles can form a triangle and write No if otherwise.

- | | | | |
|-------------------|------------|-------------------|------------|
| a. 30°, 60°, 90° | <u>Yes</u> | d. 110°, 60°, 90° | <u>No</u> |
| b. 40°, 60°, 90° | <u>No</u> | e. 50°, 40°, 90° | <u>Yes</u> |
| c. 130°, 60°, 90° | <u>No</u> | f. 55°, 55°, 70° | <u>Yes</u> |

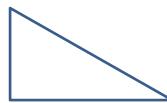
3. Write Yes if the set of angles can form a quadrilateral and write No if otherwise.

- | | | | |
|-------------------------|------------|-------------------------|------------|
| a. 50°, 60°, 100°, 150° | <u>Yes</u> | d. 50°, 40°, 120°, 150° | <u>Yes</u> |
| b. 70°, 60°, 110°, 120° | <u>Yes</u> | e. 50°, 60°, 100°, 100° | <u>No</u> |
| c. 50°, 60°, 150°, 150° | <u>No</u> | f. 50°, 50°, 170°, 150° | <u>No</u> |

4. Write the sum of the internal angles of each of the following figures.



360°



180°

5. The two angles of a triangle are 50° and 40°. What is the third one?

90°

6. The three angles of a quadrilateral are 150°, 50°, and 50°. What is the fourth one?

110°