Interior and Exterior angles of regular polygons GREEN

1. Calculate the sum of all the interior angles in a polygon

with:

a. 10 sides b. 12 sides c. 13 sides

2. How many sides do these regular polygons have if their exterior angles are…?

a. 30° b. 18° c. 40°

3. What is each interior angle of a regular polygon with 14 sides?

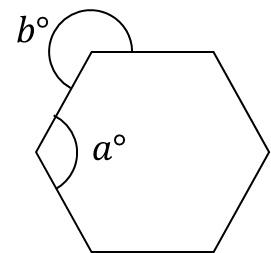
4. Each interior angle of a regular polygon is 168°. How many sides does the polygon have?

5. Calculate the sum of the interior angles of a polygon with 22 sides.

6. Vinny says that he has drawn a regular polygon with interior

angles of 25°. James says that is not possible. Who is correct? You must give a reason for your answer.

7. I walk around the perimeter of a regular hexagonal ornamental pond. Through how many degrees do I turn at each corner? And altogether?

8. The diagram shows a regular hexagon. What are the sizes of angles and ?

Interior and Exterior angles of regular polygons AMBER

1. Calculate the sum of all the interior angles in a polygon

with:

a. 10 sides b. 12 sides c. 13 sides

2. How many sides do these regular polygons have if their exterior angles are…?

a. 30° b. 18° c. 40°

3. What is each interior angle of a regular polygon with 14 sides?

Either start by calculating the sum of interior angles OR the size of an exterior angle.

4. Each interior angle of a regular polygon is 168°. How many sides does the polygon have?

Start by calculating the size of an exterior angle.

5. Calculate the sum of the interior angles of a polygon with 22 sides.

Use

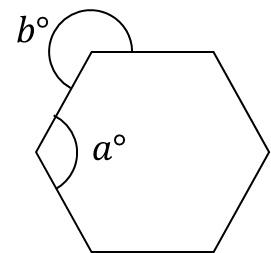
6. Vinny says that he has drawn a regular polygon with interior

angles of 25°. James says that is not possible. Who is correct? You must give a reason for your answer.

Calculate the exterior angle and divide 360° by your answer.

7. I walk around the perimeter of a regular hexagonal ornamental pond. Through how many degrees do I turn at each corner? And altogether?

If it’s tricky, draw a piccy!

8. The diagram shows a regular hexagon. What are the sizes of angles and ?

is not an exterior angle…

Interior and Exterior angles of regular polygons RED

1. Calculate the sum of all the interior angles in a polygon

with:

a. 10 sides b. 12 sides c. 13 sides

2. How many sides do these regular polygons have if their exterior angles are…?

a. 30° b. 18° c. 40°

sides

3. What is each interior angle of a regular polygon with 14 sides?

Either start by calculating the sum of interior angles OR the size of an exterior angle.

Exterior angle \_\_\_\_

Interior angle \_\_\_\_

4. Each interior angle of a regular polygon is 168°. How many sides does the polygon have?

Start by calculating the size of an exterior angle.

Exterior angle \_\_\_\_

Sides \_\_\_\_ \_\_\_\_

5. Calculate the sum of the interior angles of a polygon with 22 sides.

Use

6. Vinny says that he has drawn a regular polygon with interior

angles of 25°. James says that is not possible. Who is correct? You must give a reason for your answer.

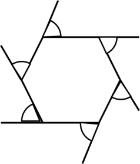
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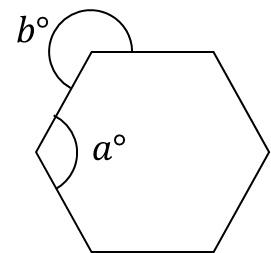
Exterior angle \_\_\_\_

Sides \_\_\_\_ \_\_\_\_

7. I walk around the perimeter of a regular hexagonal ornamental pond. Through how many degrees do I turn at each corner? And altogether?

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