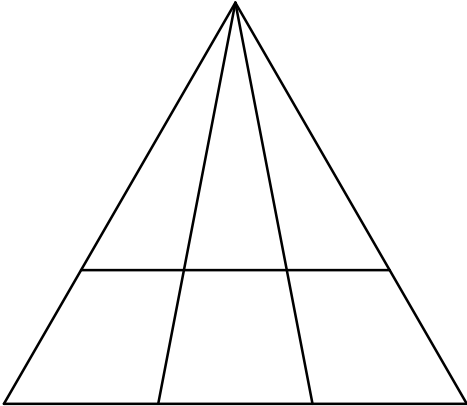# Whatcom County Math Championship – 2019
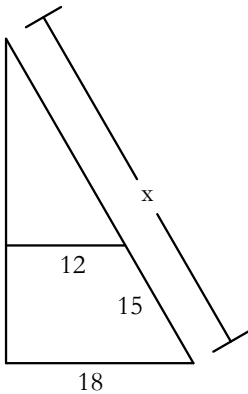## Geometry – 4th Grade

1. How many triangles of all sizes are there in this figure?
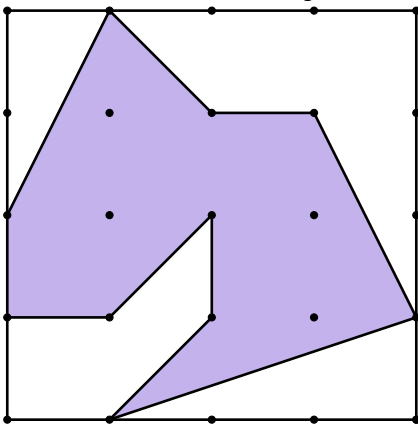

2. An L-shape is made of three squares joined side by side by side. If the area of one of the squares is 36, what is the perimeter of the shape?

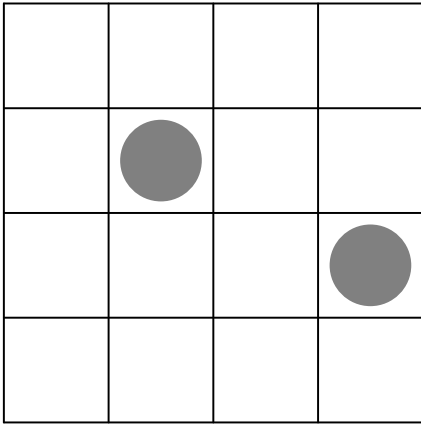3. A triangle has angles that are in a 3:4:5 ratio. What is the largest angle?

4. How long is x?

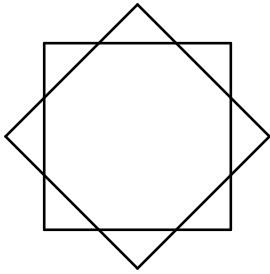5. What fraction of the square is shaded? **Write the answer as a reduced fraction.**

6. A triangle has an area of 144 cm^2 and a height of 16 cm. What is the base of the triangle?

7. How many rectangles of all sizes contain both circles? (squares count as rectangles)
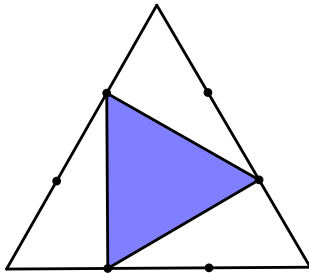
8. How many lines of symmetry are there in this shape?

9. Four cubical blocks are arranged in the shape of a square, and they have a surface area of 1296 cm². If the blocks are separated, what is the total surface area, in cm²?
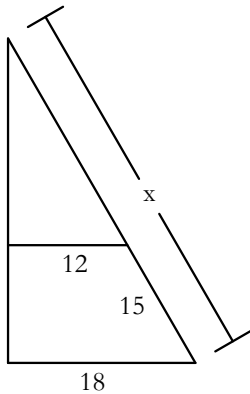
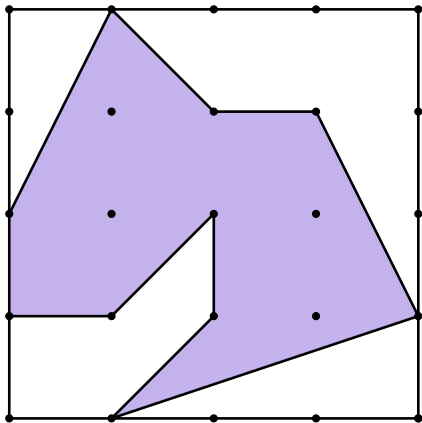10. What fraction of the triangle is shaded? **Write the answer as a reduced fraction.**
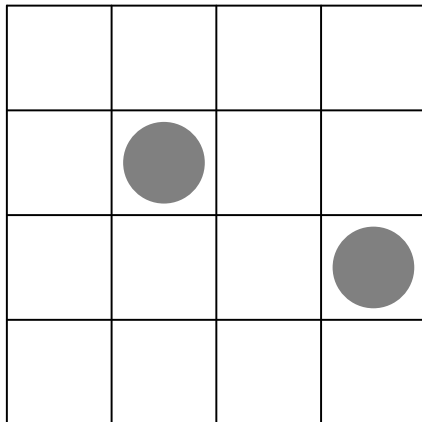
1. How long is x?

2. What fraction of the square is shaded? **Write the answer as a reduced fraction.**
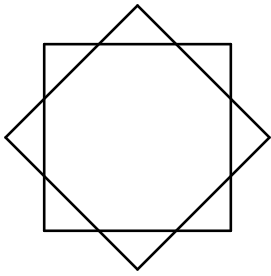

3. A triangle has an area of 144 cm^2 and a height of 16 cm. What is the base of the triangle?

4. How many rectangles of all sizes contain both circles? (squares count as rectangles)
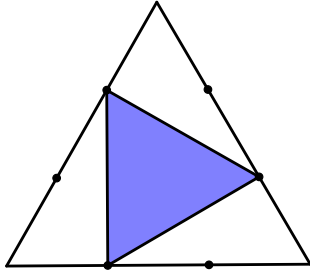
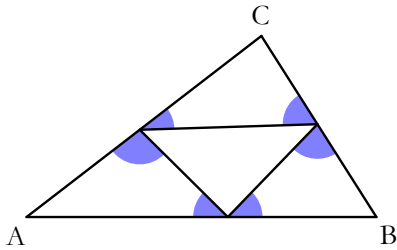5. How many lines of symmetry are there in this shape?

6. Four cubical blocks are arranged in the shape of a square, and they have a surface area of 1296 cm². If the blocks are separated, what is the total surface area, in cm²?
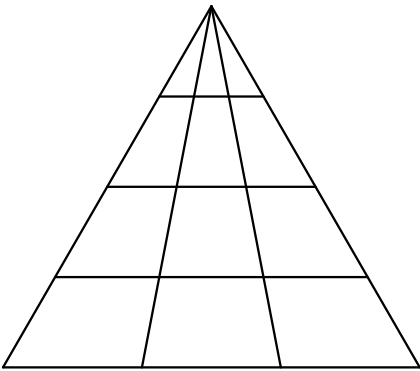
7. What fraction of the triangle is shaded? **Write the answer as a reduced fraction.**

8. What is the sum of the degree measures of the marked angles?

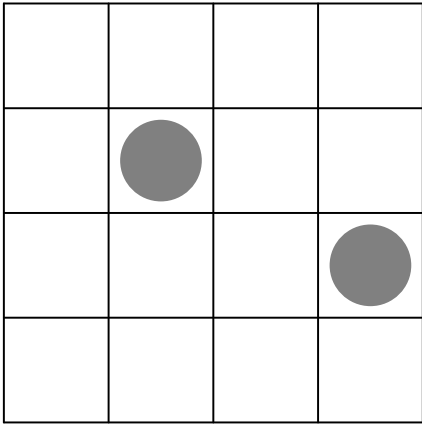9. How many triangles of all sizes are there in this figure?

10. The numerical area of a circle is the same as its circumference. What is that area? **Round your answer to the nearest tenth.**

Whatcom County Math Championship – 2019
Geometry – 6th Grade

1. How many rectangles of all sizes contain both circles? (squares count as rectangles)

2. How many lines of symmetry are there in this shape?

3. Four cubical blocks are arranged in the shape of a square, and they have a surface area of 1296 cm². If the blocks are separated, what is the total surface area, in cm²?

4. What fraction of the triangle is shaded? **Write the answer as a reduced fraction.**

5. What is the sum of the degree measures of the marked angles?

6. How many triangles of all sizes are there in this figure?

7. The numerical area of a circle is the same as its circumference. What is that area? **Round your answer to the nearest tenth.**
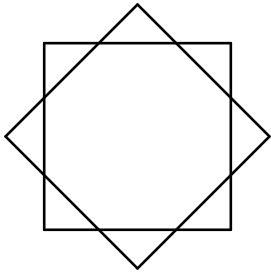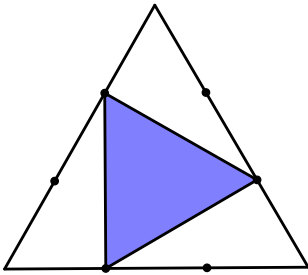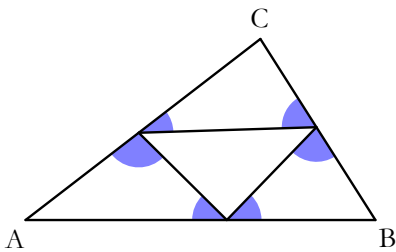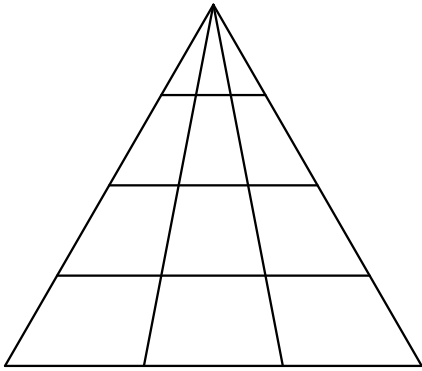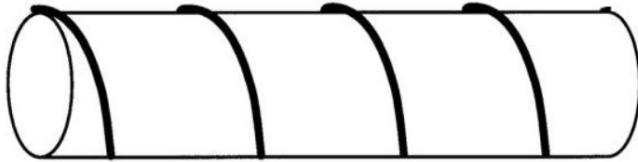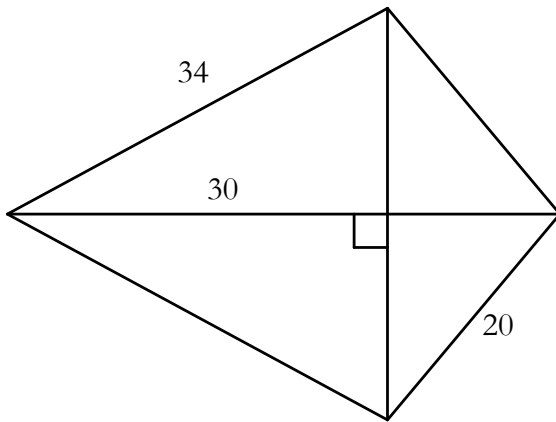
8. A string is wrapped evenly around a cylinder. The string goes exactly around four times. The circumference of the cylinder is 3 and the length is 16. What is the length of the string in cm? **Round your answer to the nearest tenth.**
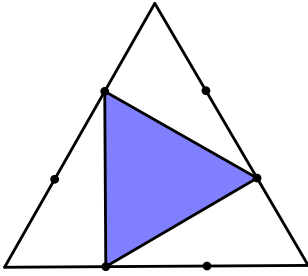
9. What is the area of the kite?

34

30

20

10. A circle folded in half has a perimeter of 41.13 cm. What is the area of the unfolded circle in cm^2? **Round your answer to the nearest whole number.**
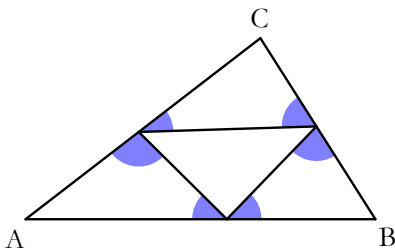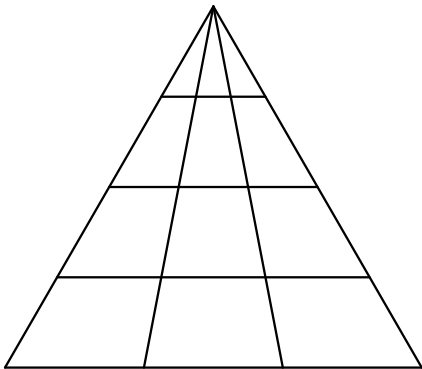
1. What fraction of the triangle is shaded? **Write the answer as a reduced fraction.**

2. What is the sum of the degree measures of the marked angles?

3. How many triangles of all sizes are there in this figure?

4. The numerical area of a circle is the same as its circumference. What is that area? **Round your answer to the nearest tenth.**

5. A string is wrapped evenly around a cylinder. The string goes exactly around four times. The circumference of the cylinder is 3 and the length is 16. What is the length of the string in cm? **Round your answer to the nearest tenth.**
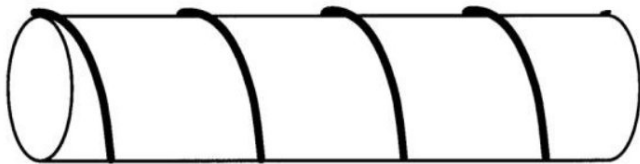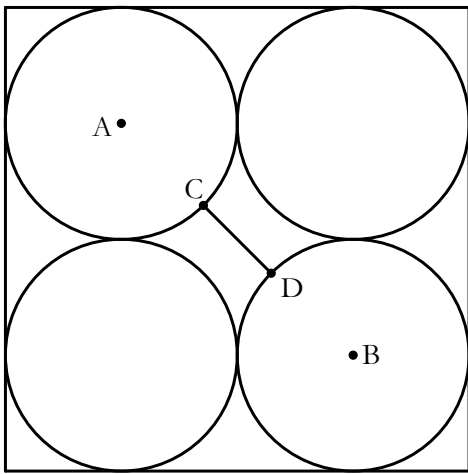
6. What is the area of the kite?
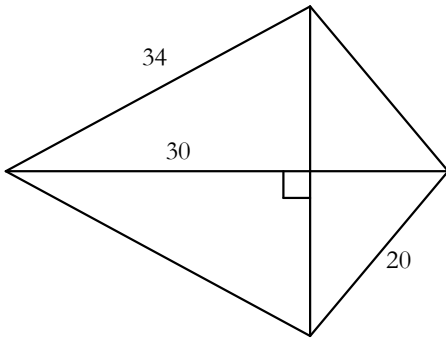
7. A circle folded in half has a perimeter of 41.13 cm. What is the area of the unfolded circle in cm²? **Round your answer to the nearest whole number.**

8. CD is the shortest distance between circles A and B. If the area of the square is 64, what is CD? **Round your answer to the nearest hundredth.**

9. All of these triangles are similar. How long is d? **Write the answer as a reduced fraction.**
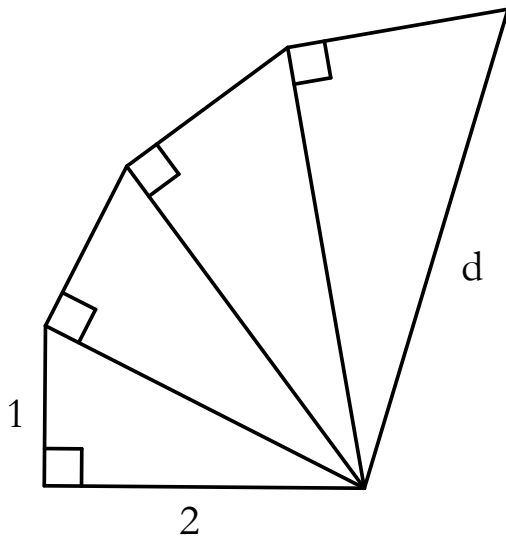
10. Four cubical blocks are arranged in the shape of a square, and they have a surface area of A cm². If the blocks are separated, the total surface area is B cm². What is the length of one block if B − A = 1800 cm²?