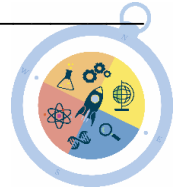


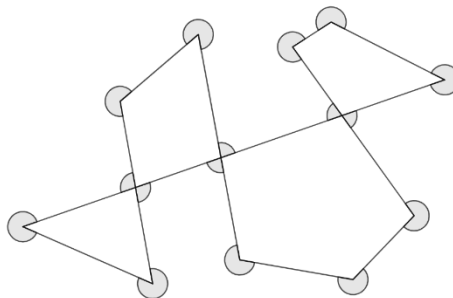
Name: \_\_\_\_\_

School: \_\_\_\_\_

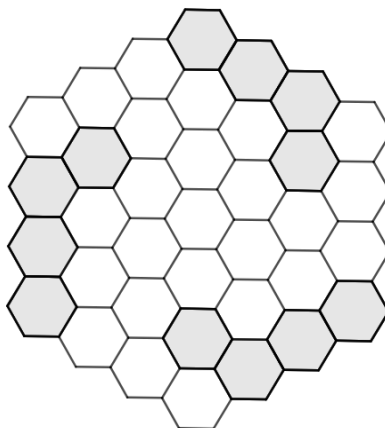


### Izzi Math Challenge 2025 - Grade 5

1. How many fractions between  $\frac{3}{4}$  and  $\frac{2}{5}$  have a denominator of 60 in their simplest form?
2. Balin the dwarf makes 49 golden cubes. The first cube has edges that are 1cm long, the second has edges that are 2cm long, etc. He also carves his mark into each cube, removing  $0.2\text{cm}^3$  of gold from the cube in the process. Find the median volume of his finished golden cubes.
3. Find the sum of the marked angles in the diagram.



4. ABCD is a square with side length 3cm. ACEF is a rhombus with angles of  $50^\circ$  and  $130^\circ$ . Draw these shapes accurately and record the length of the diagonals (AE and CF) of the rhombus.
5. In the diagram below, shade the smallest number of additional hexagons required to produce a shape with order 2 rotational symmetry and no lines of symmetry.



6. Find the range of the following set of numbers: 2.025 2.0(25) 2.02(5) 2.(025) 2.25 2.(25) 2.2(5)

7. Geraldine is practicing a skateboard trick. After a series of 25 attempts, she had landed successfully 52% of the time. Fifteen attempts later, her success rate has increased to 55%. On how many of the last fifteen attempts did Geraldine land the trick?

8. Let A be the smallest multiple of 45 which is also a cube number. Let B be the smallest multiple of 54 which is also a square number. Find the highest common factor and lowest common multiple of A and B.

9. George and Angelina both follow the same route from their school to a stadium. The route is 1600m long. George leaves the school at 14:04 and after walking for 6 minutes, stops at a coffee shop 400m away from the school. He spends 8 minutes at the coffee shop, then walks with the same pace as before until he reaches the stadium. Angelina leaves the school 10 minutes after George and walks straight to the stadium. Her walk takes exactly 20 minutes. Show their two journeys as travel graphs on the grid below. Use your travel graph to record at what time did Angelina pass George on her way to the stadium.

10. One side of a kite is 15cm when measured to the nearest centimeter, but only 1dm when measured to the nearest decimeter. Another side of the kite is also 15cm when measured to the nearest centimeter, but 2dm when measured to the nearest decimeter. What is the smallest possible value for the perimeter of the kite? Is it possible to also find a highest possible value?