

The Secret Runes of Rivendell

Solve the math equations by matching the elven symbols to their correct numbers to find the four-digit combination.

Name: _____ Date: _____

1 THE KEY

$$\text{Pentagon} = 3 \quad \text{Hexagon with ?} = \boxed{} \quad \text{Circle} = 11 \quad \text{Lightning bolt} = 6 \quad \text{Black circle} = 2 \quad \text{Heart with ?} = \boxed{}$$

Every symbol is a whole number from 1 to 12. A number in front of a shape means multiply: 2 stars = 2 x star.

2 FIND THE MISSING VALUES

Some shapes in the key are missing. Use these to work them out, in order, and write them into the key.

$$\text{Hexagon} + \text{Hexagon} + \text{Hexagon} = 27$$

$$\text{Heart} + \text{Heart} + \text{Heart} = 21$$

3 CRACK THESE

$$1. \text{Circle} + \text{Heart} + \text{Hexagon} = \boxed{}$$

$$2. 3 \text{Hexagon} - \text{Heart} = \boxed{}$$

CODE 1

$$3. \text{Lightning bolt} \times \text{Heart} = \boxed{}$$

$$4. \text{Lightning bolt} \times \text{Black circle} + \text{Heart} = \boxed{}$$

CODE 2

$$5. \text{Pentagon} \times \text{Circle} - \text{Lightning bolt} = \boxed{}$$

$$6. \text{Pentagon} \times \text{Lightning bolt} + \text{Black circle} = \boxed{}$$

CODE 3

$$7. \text{Lightning bolt} + \text{Pentagon} + \text{Black circle} = \boxed{}$$

$$8. 5 \text{Circle} - \text{Pentagon} = \boxed{}$$

CODE 4

$$9. 2 \text{Pentagon} + \text{Hexagon} = \boxed{}$$

$$10. 5 \text{Lightning bolt} - \text{Pentagon} = \boxed{}$$

4 THE VAULT CODE

Write the ONES digit of your answers to problems 2, 4, 6, 8 (the ones tagged CODE 1-4), in that order. That opens the bilbo bagginss locked.

Answer Key

The Secret Runes of Rivendell · Grade 3 Crack the Code

The key

 pentagon = **3**
  hexagon = **9** (hidden)
  ring = **11**
  lightning bolt = **6**
  circle = **2**
 heart = **7** (hidden)

Every symbol is a whole number from 1 to 12.

- | | | |
|-----|--|-----------|
| 1. |  +  +  (ring + heart + hexagon) | 27 |
| 2. | 3  -  (3 x hexagon - heart) | 20 |
| 3. |  x  (lightning bolt x heart) | 42 |
| 4. |  x  +  (lightning bolt x circle + heart) | 19 |
| 5. |  x  -  (pentagon x ring - lightning bolt) | 27 |
| 6. |  x  +  (pentagon x lightning bolt + circle) | 20 |
| 7. |  +  +  (lightning bolt + pentagon + circle) | 11 |
| 8. | 5  -  (5 x ring - pentagon) | 52 |
| 9. | 2  +  (2 x pentagon + hexagon) | 15 |
| 10. | 5  -  (5 x lightning bolt - pentagon) | 27 |

Vault code: 0902