



# The Secret Runes of Rivendell

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

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

## 1 THE KEY

$$\begin{array}{cccccc} \blacktriangleup & = & 3 & \text{?} & = & \square \\ \bigcirc & = & 11 & \text{⚡} & = & 6 \\ \bullet & = & 2 & \heartsuit & = & \square \end{array}$$

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.

$$\blacktriangleup + \blacktriangleup + \blacktriangleup = 27$$

$$\heartsuit + \heartsuit + \heartsuit = 21$$

## 3 CRACK THESE

$$1. \bigcirc + \heartsuit + \blacktriangleup = \square$$

$$2. 3\blacktriangleup - \heartsuit = \square$$

CODE 1

$$3. \text{⚡} \times \heartsuit = \square$$

$$4. \text{⚡} \times \bullet + \heartsuit = \square$$

CODE 2

$$5. \blacktriangleup \times \bigcirc - \text{⚡} = \square$$

$$6. \blacktriangleup \times \text{⚡} + \bullet = \square$$

CODE 3

$$7. \text{⚡} + \blacktriangleup + \bullet = \square$$

$$8. 5\bigcirc - \blacktriangleup = \square$$

CODE 4

$$9. 2\blacktriangleup + \blacktriangleup = \square$$

$$10. 5\text{⚡} - \blacktriangleup = \square$$

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

**Vault code: 0902**