

The Redstone Cryptograph

Determine the secret number values of the sword, pickaxe, potion, and redstone dust symbols to solve the equations and find the four-digit security code.

Name: _____ Date: _____

1 THE KEY

$$\blacksquare = 12 \quad + = 9 \quad \triangle = \square \quad \bullet = 11 \quad \text{⚡} = 2 \quad \diamond = \square$$

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.

$$\blacklozenge + \blacklozenge + \blacklozenge = 30$$

$$\blacktriangle + \bullet = 18$$

3 CRACK THESE

$$1. \text{⚡} \times \blacktriangle + \bullet = \square$$

$$2. \bullet + \blacksquare + \blacklozenge = \square$$

CODE 1

$$3. \blacktriangle \times \blacksquare = \square$$

$$4. 10\blacktriangle + \blacklozenge = \square$$

CODE 2

$$5. 5\bullet - \blacksquare = \square$$

$$6. \blacktriangle \times + = \square$$

CODE 3

$$7. \blacklozenge \times \blacksquare - \blacktriangle = \square$$

$$8. \blacksquare \times + - \text{⚡} = \square$$

CODE 4

$$9. 2\bullet + \blacklozenge = \square$$

$$10. 10\blacklozenge + + = \square$$

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 reinforced obsidian chest.

Answer Key

The Redstone Cryptograph · Grade 3 Crack the Code

The key

■ square = **12** + cross = **9** ▲ triangle = **7** (hidden) ⬡ hexagon = **11** ⚡ lightning bolt = **2**
 ◆ diamond = **10** (hidden)

Every symbol is a whole number from 1 to 12.

1. ⚡ x ▲ + ⬡ (lightning bolt x triangle + hexagon) **25**
2. ⬡ + ■ + ◆ (hexagon + square + diamond) **33**
3. ▲ x ■ (triangle x square) **84**
4. 10▲ + ◆ (10 x triangle + diamond) **80**
5. 5⬡ - ■ (5 x hexagon - square) **43**
6. ▲ x + (triangle x cross) **63**
7. ◆ x ■ - ▲ (diamond x square - triangle) **113**
8. ■ x + - ⚡ (square x cross - lightning bolt) **106**
9. 2⬡ + ◆ (2 x hexagon + diamond) **32**
10. 10◆ + + (10 x diamond + cross) **109**

Vault code: **3 0 3 6**