



Redstone Block Decoder

Solve the math equations to determine the numeric value of each item and unlock the ancient obsidian vault.

Name: _____ Date: _____

1 THE KEY

$$\text{?} = \square \quad \text{?} = \square \quad \blacklozenge = 9 \quad \text{⚡} = \square \quad \text{+} = 16 \quad \heartsuit = 7$$

Every symbol is a whole number from 1 to 20. 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.

$$\bullet^2 = 144$$

$$2\blacklozenge + \text{+} = 24$$

$$3\text{⚡} = 51$$

3 CRACK THESE

$$1. \blacklozenge \times \heartsuit - \text{+} = \square$$

$$2. \blacklozenge + \heartsuit \times \text{⚡} = \square$$

CODE 1

$$3. 10\blacklozenge - \text{⚡} = \square$$

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

CODE 2

$$5. \bullet \div 2 + \heartsuit = \square$$

$$6. \bullet \times \text{⚡} - \blacklozenge = \square$$

CODE 3

$$7. 3\blacklozenge + 2\blacklozenge = \square$$

$$8. (\blacklozenge + \text{⚡}) \times \blacklozenge = \square$$

CODE 4

$$9. \blacklozenge \times \blacklozenge + \text{+} \times \bullet = \square$$

$$10. \text{+} + \bullet \times \heartsuit = \square$$

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 enchanted obsidian vault.

Answer Key

Redstone Block Decoder · Grade 5 Crack the Code

The key

 circle = **12** (hidden)
  pentagon = **4** (hidden)
  diamond = **9**
  lightning bolt = **17** (hidden)
 cross = **16**
 heart = **7**

Every symbol is a whole number from 1 to 20.

1.  x  -  (pentagon x heart - cross) **12**
2.  +  x  (pentagon + heart x lightning bolt) **123**
3. **10**  -  (10 x pentagon - lightning bolt) **23**
4.  x  +  x  (lightning bolt x cross + circle x pentagon) **320**
5.  ÷ **2** +  (circle / 2 + heart) **13**
6.  x  -  (circle x lightning bolt - diamond) **195**
7. **3**  + **2**  (3 x pentagon + 2 x diamond) **30**
8. ( + ) x  ((diamond + lightning bolt) x pentagon) **104**
9.  x  +  x  (diamond x pentagon + cross x circle) **228**
10.  +  x  (cross + circle x heart) **100**

Vault code: **3 0 5 4**