



The Celestia Meadow Code

Solve the mathematical equations by finding the numerical value of each enchanted shape to unlock the ancient starlight vault.

Name: _____ Date: _____

1 THE KEY

$$\blacklozenge = 14 \quad \text{pentagon with ?} = \square \quad \star = 6 \quad \text{crescent moon} = 10 \quad \text{hexagon with ?} = \square \quad \text{circle with ?} = \square$$

Every symbol is a whole number from 1 to 15. 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.

$$\blacklozenge + \blacklozenge + \blacklozenge = 45$$

$$\blacklozenge - \bullet = 6$$

$$\blacklozenge \times \bullet = 96$$

3 CRACK THESE

$$1. \quad 10 \blacklozenge - \blacklozenge = \square$$

$$2. \quad (\bullet + \text{hexagon}) \times \blacklozenge = \square$$

CODE 1

$$3. \quad \text{hexagon} \times \blacklozenge - \text{crescent moon} = \square$$

$$4. \quad \text{crescent moon} \times \text{hexagon} = \square$$

CODE 2

$$5. \quad 100 \blacklozenge + \text{hexagon} = \square$$

$$6. \quad \blacklozenge \times \star + \text{hexagon} = \square$$

CODE 3

$$7. \quad \text{hexagon} \times \blacklozenge - \star = \square$$

$$8. \quad 3 \text{hexagon} + 2 \blacklozenge = \square$$

CODE 4

$$9. \quad \blacklozenge \times \blacklozenge = \square$$

$$10. \quad (\star + \text{crescent moon}) \times \blacklozenge = \square$$

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 star-prism treasure chest.

Answer Key

The Celestia Meadow Code · Grade 4 Crack the Code

The key

 diamond = **14**
  pentagon = **15** (hidden)
  star = **6**
  moon = **10**
  hexagon = **12** (hidden)

 circle = **8** (hidden)

Every symbol is a whole number from 1 to 15.

- | | | |
|-----|---|-------------|
| 1. | $10 \times \text{pentagon} - \text{diamond}$ (10 x pentagon - diamond) | 136 |
| 2. | $(\text{circle} + \text{hexagon}) \times \text{diamond}$ ((circle + hexagon) x diamond) | 280 |
| 3. | $\text{hexagon} \times \text{diamond} - \text{moon}$ (hexagon x diamond - moon) | 158 |
| 4. | $\text{moon} \times \text{hexagon}$ (moon x hexagon) | 120 |
| 5. | $100 \times \text{pentagon} + \text{hexagon}$ (100 x pentagon + hexagon) | 1512 |
| 6. | $\text{pentagon} \times \text{star} + \text{hexagon}$ (pentagon x star + hexagon) | 102 |
| 7. | $\text{hexagon} \times \text{pentagon} - \text{star}$ (hexagon x pentagon - star) | 174 |
| 8. | $3 \times \text{hexagon} + 2 \times \text{diamond}$ (3 x hexagon + 2 x diamond) | 64 |
| 9. | $\text{pentagon} \times \text{diamond}$ (pentagon x diamond) | 210 |
| 10. | $(\text{star} + \text{moon}) \times \text{pentagon}$ ((star + moon) x pentagon) | 240 |

Vault code: **0 0 2 4**