

# 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

$$\blacklozenge = 14 \quad \text{?} = \square \quad \star = 6 \quad \text{☾} = 10 \quad \text{?} = \square \quad \text{?} = \square$$

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

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

$$2. \quad (\bullet + \blacklozenge) \times \blacklozenge = \square$$

CODE 1

$$3. \quad \blacklozenge \times \blacklozenge - \text{☾} = \square$$

$$4. \quad \text{☾} \times \blacklozenge = \square$$

CODE 2

$$5. \quad 100\blacklozenge + \blacklozenge = \square$$

$$6. \quad \blacklozenge \times \star + \blacklozenge = \square$$

CODE 3

$$7. \quad \blacklozenge \times \blacklozenge - \star = \square$$

$$8. \quad 3\blacklozenge + 2\blacklozenge = \square$$

CODE 4

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

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

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

Vault code: **0 0 2 4**