The Enchanted Hoops Secret Vault

Solve the math equations using the magical unicorn and basketball values to reveal the four-digit code and unlock the rainbow trophy case.

Name: _____ **Date:** _____

1 THE KEY

◆ = 4 ? = ☐ ★ = 7 ☾ = ☐ ⚡ = ☐ ⬟ = 16

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.

⚡² = 100

5● = 90

☾ - ⬟ = 1

3 CRACK THESE

1. ⚡ × ● × ★ = ☐
2. ⬟ ÷ 2 + ☾ = ☐ CODE 1
3. ◆ × ★ - ☾ = ☐
4. 10◆ - ⬟ = ☐ CODE 2
5. 3☾ + 2⚡ = ☐
6. ☾ + ★ × ● = ☐ CODE 3
7. (★ + ⚡) × ◆ = ☐
8. ⬟ × ● - ⚡ = ☐ CODE 4
9. 10⬟ - ☾ = ☐
10. ⚡ × ☾ + ◆ × ⬟ = ☐

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 rainbow trophy case.

TEACHER / PARENT

Answer Key

The Enchanted Hoops Secret Vault · Grade 5 Crack the Code

The key

◆ diamond = **4** ● circle = **18** (hidden) ★ star = **7** ☾ moon = **17** (hidden)

ϟ lightning bolt = **10** (hidden) ⬟ pentagon = **16**

Every symbol is a whole number from 1 to 20.

1.	ϟ × ● × ★ (lightning bolt x circle x star)	**1260**
2.	⬟ ÷ **2** + ☾ (pentagon / 2 + moon)	**25**
3.	◆ × ★ - ☾ (diamond x star - moon)	**11**
4.	**10**◆ - ⬟ (10 x diamond - pentagon)	**24**
5.	**3**☾ + **2**ϟ (3 x moon + 2 x lightning bolt)	**71**
6.	☾ + ★ × ● (moon + star x circle)	**143**
7.	(★ + ϟ) × ◆ ((star + lightning bolt) x diamond)	**68**
8.	⬟ × ● - ϟ (pentagon x circle - lightning bolt)	**278**
9.	**10**⬟ - ☾ (10 x pentagon - moon)	**143**
10.	ϟ × ☾ + ◆ × ⬟ (lightning bolt x moon + diamond x pentagon)	**234**

Vault code: **5 4 3 8**