

Championship Trophy Case Decoder

Solve the value of each basketball symbol to find the combination that unlocks the championship trophy case before the final buzzer.

Name: _____ Date: _____

1 THE KEY

$$\text{?} = \square \quad \star = \square \quad + = 7 \quad \hexagon = 6 \quad \text{?} = \square \quad \heartsuit = 19$$

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.

$$\text{O}^2 = 196$$

$$2\star + \text{O} = 30$$

$$5\text{C} = 45$$

3 CRACK THESE

$$1. \heartsuit \times \hexagon - \text{O} \times \star = \square$$

$$2. 10\heartsuit - \hexagon = \square$$

CODE 1

$$3. + \times \text{O} - \text{C} \times \hexagon = \square$$

$$4. \star \times \text{O} + + \times \heartsuit = \square$$

CODE 2

$$5. + + \hexagon \times \text{C} = \square$$

$$6. (\text{O} + +) \times \hexagon = \square$$

CODE 3

$$7. \heartsuit + \hexagon \times \star = \square$$

$$8. (\text{O} + \star) \times \hexagon = \square$$

CODE 4

$$9. \text{O} \div 2 + + = \square$$

$$10. 10\text{C} - + = \square$$

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 championship trophy case.

Answer Key

Championship Trophy Case Decoder · Grade 5 Crack the Code

The key

 ring = **14** (hidden)
  star = **8** (hidden)
  cross = **7**
  hexagon = **6**
  moon = **9** (hidden)
 heart = **19**

Every symbol is a whole number from 1 to 20.

- | | | |
|-----|---|------------|
| 1. | $\text{heart} \times \text{hexagon} - \text{ring} \times \text{star}$ (heart x hexagon - ring x star) | 2 |
| 2. | $10 \times \text{heart} - \text{hexagon}$ (10 x heart - hexagon) | 184 |
| 3. | $\text{cross} \times \text{ring} - \text{moon} \times \text{hexagon}$ (cross x ring - moon x hexagon) | 44 |
| 4. | $\text{star} \times \text{ring} + \text{cross} \times \text{heart}$ (star x ring + cross x heart) | 245 |
| 5. | $\text{cross} + \text{hexagon} \times \text{moon}$ (cross + hexagon x moon) | 61 |
| 6. | $(\text{ring} + \text{cross}) \times \text{hexagon}$ ((ring + cross) x hexagon) | 126 |
| 7. | $\text{heart} + \text{hexagon} \times \text{star}$ (heart + hexagon x star) | 67 |
| 8. | $(\text{ring} + \text{star}) \times \text{hexagon}$ ((ring + star) x hexagon) | 132 |
| 9. | $\text{ring} \div 2 + \text{cross}$ (ring / 2 + cross) | 14 |
| 10. | $10 \times \text{moon} - \text{cross}$ (10 x moon - cross) | 83 |

Vault code: **4 5 6 2**