



Crack the Vault Code

Someone locked the vault with a 4-digit code. Work out what each shape is worth and crack it.

Name: _____ Date: _____

1 THE KEY

$$\bigcirc = 5 \quad \bullet = 4 \quad \heartsuit = 1 \quad \smile = 8 \quad \blacksquare = 9$$

Every symbol is a whole number from 1 to 10. A number in front of a shape means multiply: 2 stars = 2 x star.

2 CRACK THESE

1. $3\bigcirc - \blacksquare = \boxed{}$

2. $2\bullet - \bigcirc = \boxed{}$

CODE 1

3. $2\bigcirc - \heartsuit = \boxed{}$

4. $\smile + \heartsuit = \boxed{}$

CODE 2

5. $2\heartsuit = \boxed{}$

6. $3\bullet - \heartsuit = \boxed{}$

CODE 3

7. $2\smile + \bigcirc = \boxed{}$

8. $\smile + \bullet + \heartsuit = \boxed{}$

CODE 4

9. $\bullet + \boxed{} = 13$ Draw the shape:

10. $\smile + \boxed{} = 13$ Draw the shape:

3 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 vault.

Answer Key

Crack the Vault Code · Grade 2 Crack the Code

The key

○ ring = 5 ● circle = 4 ♥ heart = 1 ☾ moon = 8 ■ square = 9

Every symbol is a whole number from 1 to 10.

- | | | | |
|-----|---------------|-------------------------|--------|
| 1. | $3○ - ■$ | (3 x ring - square) | 6 |
| 2. | $2● - ○$ | (2 x circle - ring) | 3 |
| 3. | $2○ - ♥$ | (2 x ring - heart) | 9 |
| 4. | $☾ + ♥$ | (moon + heart) | 9 |
| 5. | $2♥$ | (2 x heart) | 2 |
| 6. | $3● - ♥$ | (3 x circle - heart) | 11 |
| 7. | $2☾ + ○$ | (2 x moon + ring) | 21 |
| 8. | $☾ + ● + ♥$ | (moon + circle + heart) | 13 |
| 9. | $● + \square$ | = 13 (circle + ?) | square |
| 10. | $☾ + \square$ | = 13 (moon + ?) | ring |

Vault code: **3 9 1 3**