

Hawkins AV Club Cipher

Use your math skills to decode the mysterious radio signals from the Upside Down and help the Hawkins AV Club unlock the secret transmitter.

Name: _____ Date: _____

1 THE KEY

$$\text{☾} = 13 \quad \text{⬠} = \boxed{} \quad \text{⬡} = \boxed{} \quad \text{♥} = 9 \quad \text{⬠} = \boxed{} \quad \text{⚡} = 10$$

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.

$$\text{⬠} \times \text{⚡} = 40$$

$$2 \text{ ⬠} = 30$$

$$\text{⬠} + \text{♥} = 21$$

3 CRACK THESE

$$1. (\text{⬠} + \text{☾}) \times \text{♥} = \boxed{}$$

$$2. 3 \text{ ⬠} + 2 \text{ ⬠} = \boxed{}$$

CODE 1

$$3. 100 \text{ ☾} + \text{⬠} = \boxed{}$$

$$4. 3 \text{ ♥} + 2 \text{ ⬠} = \boxed{}$$

CODE 2

$$5. \text{⬠} \times \text{⚡} - \text{♥} = \boxed{}$$

$$6. \text{⚡} \times \text{⬠} = \boxed{}$$

CODE 3

$$7. (\text{⬠} - \text{⚡}) \times \text{⬠} = \boxed{}$$

$$8. 100 \text{ ⬠} + \text{⚡} = \boxed{}$$

CODE 4

$$9. \text{⬠} \times \text{⚡} = \boxed{}$$

$$10. \text{♥} \times \text{⚡} - \text{⬠} = \boxed{}$$

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 mikes basement lockbox.

Answer Key

Hawkins AV Club Cipher · Grade 4 Crack the Code

The key

 moon = **13**
  pentagon = **15** (hidden)
  hexagon = **4** (hidden)
  heart = **9**
 diamond = **12** (hidden)
 lightning bolt = **10**

Every symbol is a whole number from 1 to 15.

1. $(\text{hexagon} + \text{moon}) \times \text{heart}$ ((hexagon + moon) x heart) **153**
2. $3 \times \text{pentagon} + 2 \times \text{diamond}$ (3 x pentagon + 2 x diamond) **69**
3. $100 \times \text{moon} + \text{hexagon}$ (100 x moon + hexagon) **1304**
4. $3 \times \text{heart} + 2 \times \text{diamond}$ (3 x heart + 2 x diamond) **51**
5. $\text{diamond} \times \text{lightning bolt} - \text{heart}$ (diamond x lightning bolt - heart) **111**
6. $\text{lightning bolt} \times \text{pentagon}$ (lightning bolt x pentagon) **150**
7. $(\text{pentagon} - \text{lightning bolt}) \times \text{diamond}$ ((pentagon - lightning bolt) x diamond) **60**
8. $100 \times \text{pentagon} + \text{lightning bolt}$ (100 x pentagon + lightning bolt) **1510**
9. $\text{hexagon} \times \text{lightning bolt}$ (hexagon x lightning bolt) **40**
10. $\text{heart} \times \text{lightning bolt} - \text{hexagon}$ (heart x lightning bolt - hexagon) **86**

Vault code: 9 1 0 0