



Deep Space Telemetry Decoder

Solve the mathematical value of each planetary symbol to find the four-digit launch sequence for the Ares-V rocket.

Name: _____ Date: _____

1 THE KEY

$\blacksquare = 14$

$\text{⚡} = 11$

$\text{Ⓢ} = \square$

$\text{⬠} = \square$

$\text{☾} = \square$

$\blacktriangle = 19$

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.

$\text{☾}^2 = 169$

$\text{⬠} \times \text{⚡} = 198$

$\bullet + \text{☾} = 18$

3 CRACK THESE

1. $\text{⚡} \times \blacksquare - \text{☾} = \square$

2. $10 \text{☾} - \text{⬠} = \square$

CODE 1

3. $\text{⚡} \times (\blacktriangle - \text{⬠}) = \square$

4. $3 \bullet + 2 \blacksquare = \square$

CODE 2

5. $3 \text{⚡} + 2 \bullet = \square$

6. $\text{⚡} \times \blacktriangle - \bullet = \square$

CODE 3

7. $(\blacksquare + \text{⚡}) \times \blacktriangle = \square$

8. $\blacktriangle \times (\text{☾} - \text{⚡}) = \square$

CODE 4

9. $\bullet \times \text{⚡} \times \text{⬠} = \square$

10. $\text{⬠} \times \blacktriangle + \blacksquare \times \text{⚡} = \square$

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 ares-v main engine.

Answer Key

Deep Space Telemetry Decoder · Grade 5 Crack the Code

The key

 square = **14**
  lightning bolt = **11**
  circle = **5** (hidden)
  pentagon = **18** (hidden)
 moon = **13** (hidden)
  triangle = **19**

Every symbol is a whole number from 1 to 20.

- | | | |
|-----|---|------------|
| 1. | $\text{lightning bolt} \times \text{square} - \text{moon}$ (lightning bolt x square - moon) | 141 |
| 2. | $10 \times \text{moon} - \text{pentagon}$ (10 x moon - pentagon) | 112 |
| 3. | $\text{lightning bolt} \times (\text{triangle} - \text{pentagon})$ (lightning bolt x (triangle - pentagon)) | 11 |
| 4. | $3 \times \text{circle} + 2 \times \text{square}$ (3 x circle + 2 x square) | 43 |
| 5. | $3 \times \text{lightning bolt} + 2 \times \text{circle}$ (3 x lightning bolt + 2 x circle) | 43 |
| 6. | $\text{lightning bolt} \times \text{triangle} - \text{circle}$ (lightning bolt x triangle - circle) | 204 |
| 7. | $(\text{square} + \text{lightning bolt}) \times \text{triangle}$ ((square + lightning bolt) x triangle) | 475 |
| 8. | $\text{triangle} \times (\text{moon} - \text{lightning bolt})$ (triangle x (moon - lightning bolt)) | 38 |
| 9. | $\text{circle} \times \text{lightning bolt} \times \text{pentagon}$ (circle x lightning bolt x pentagon) | 990 |
| 10. | $\text{pentagon} \times \text{triangle} + \text{square} \times \text{lightning bolt}$ (pentagon x triangle + square x lightning bolt) | 496 |

Vault code: 2 3 4 8