

# Mathematical Quantification of Natural Phenomena

Addition & Subtraction · Answer Key · 12 Questions

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1. A standard water molecule (H<sub>2</sub>O) contains 2 hydrogen atoms and 1 oxygen atom. If you combine 7 water molecules, how many total hydrogen atoms are present?

- A) 9
- B) 14**
- C) 21
- D) 5

2. The Earth has 1 natural satellite (the Moon) and Mars has 2 moons (Phobos and Deimos). What is the total sum of moons for these two planets?

- A) 2
- B) 3**
- C) 4
- D) 1

3. A human adult typically has 32 permanent teeth. If a person loses 4 wisdom teeth, how many permanent teeth remain?

- A) 28**
- B) 30
- C) 26
- D) 24

4. The planet Neptune has 14 confirmed moons. If 6 of these are categorized as inner moons, how many are not categorized as inner moons?

- A) 20
- B) 7
- C) 8**
- D) 9

5. Visible light consists of 7 primary colours (Red, Orange, Yellow, Green, Blue, Indigo, Violet). If you subtract the cool colours (Blue, Indigo, Violet) from the total, how many colours remain?

- A) 3
- B) 4**
- C) 5
- D) 2

6. Standard atmospheric pressure at sea level is 1013 millibars. If a low-pressure system decreases this value by 25 millibars, what is the new pressure?

- A) 988
- B) 1038
- C) 998
- D) 1008

7. A gold atom has 79 protons. If an atom of mercury has 80 protons, what is the difference in the number of protons between them?

- A) 2
- B) 1
- C) 159
- D) 0

8. The freezing point of water is 0 degrees Celsius and the boiling point is 100 degrees Celsius. What is the difference between these two points?

- A) 50
- B) 100
- C) 150
- D) 90

9. A standard deck of cards excluding Jokers has 52 cards. If you remove the 13 Hearts, how many cards remain?

- A) 39
- B) 40
- C) 26
- D) 33

10. The inner planets of our solar system are Mercury, Venus, Earth, and Mars. The outer planets are Jupiter, Saturn, Uranus, and Neptune. What is the total count of these planets?

- A) 6
- B) 7
- C) 8
- D) 9

11. A sound wave travels at approximately 343 meters per second in air. If a pulse travels for 2 seconds, what is the total distance covered?

- A) 345m
- B) 686m
- C) 341m
- D) 1029m

12. In the human body, the rib cage consists of 24 individual ribs. If 4 are classified as 'floating ribs', how many are not floating ribs?

A) 20

B) 28

C) 12

D) 18