

Summer maths escape room for CBSE Class 10: answers

CBSE Math Revision · CBSE Class 10 (Class 9 can try most of it) · Teacher answers and notes

No calculator. Use $\pi = 22/7$ where a lock says so.

Teacher notes

- How to run it: print the student sheet and cut out the six lock cards. Give each team lock 1. When a team brings you the right code, give them the next card (the answer key is in the answers PDF). The first team to open lock 6 escapes. Teams can also have every card at once and race through them in order.
- Each code is used in the next lock, so check every code before the team moves on: one slip early on breaks the chain.

Starter

1. **14**

- $14 \times 14 = 196$

2. **1**

- The opposite and adjacent sides are equal.

3. **9**

- $(-3) \times (-3) = 9$

Lock 1: The shells

a. **55**

- $1 + 2 + \dots + 10 = 10 \times 11 \div 2 = 55$

Lock 2: The prime lock

a. **11**

- $55 = 5 \times 11$

Lock 3: The equation

a. **5**

- $3x = 15$
- $x = 5$

Lock 4: The water tank

a. **770**

- $\pi r^2 h = 22/7 \times 49 \times 5 = 770$

Lock 5: The kite

a. **11**

- $\sin 30^\circ = 1/2$
- $770 \div 2 \div 35 = 11$

Lock 6: The beach hut

a. **53**

- $a_{11} = 3 + 10 \times 5 = 53$

Extension

1. **10**

- $50 \div 5 = 10$

Every question is original and every answer was recomputed by computer before publishing.