Christmas maths escape room for IB Maths: IGCSE / GCSE: answers

IB Math Revision · IGCSE and GCSE (Higher and Extended) · Teacher answers and notes

No calculator needed.

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. **56**
   - $7 \times 8 = 56$
2. **15**
   - $60 \div 4 = 15$
3. **54**
   - Each term is 3 times the last.

Lock 1: The wrapping room

a. **15**

- $180 \div 12 = 15$

Lock 2: The list

a. **46**

- nth term = $3n + 1$
- $3 \times 15 + 1 = 46$

Lock 3: The sleigh test

a. **138**

- 20 minutes is 1/3 of an hour.
- $46 \times 3 = 138$ km/h

Lock 4: The gift box

a. **36**

- $h = 138 \div 23 = 6$
- $3 \times 2 \times 6 = 36$

Lock 5: The crackers

a. **30**

- $5/6 \times 36 = 30$

Lock 6: The workshop door

a. **17**

- $2x = 34$
- $x = 17$

Extension

1. **47**
   - $15 + 46 + 138 + 36 + 30 + 17 = 282$
   - $282 \div 6 = 47$

Every question is original and every answer was checked before publishing.