Halloween maths activities for CBSE Class 10: Class 11

CBSE Math Revision · CBSE Class 11 (no calculator) · 31 October · Student sheet

Name _____ Class _____ Date _____

No calculator. Every answer works out exactly.

Starter (5 minutes)

1. Find the 10th term of the GP 3, 6, 12, ...

2. How many arrangements are there of the letters of the word GHOST?

3. Find the slope of the line through (2, 3) and (6, 11).

4. A = {1, 2, 3, 4} and B = {3, 4, 5}. Find n(A ∪ B).

Main activity (30 minutes)

Task A: Zombie doubling

On day 1, 5 new zombies appear. Each day the number of new zombies is double the day before: 5, 10, 20, ...

a. How many new zombies appear on day 6?

b. Find the total number of zombies after 8 days.

c. After how many whole days does the total first go above 10 000?

Task B: The haunted house plan

On a plan of a haunted house, the front door is at A(1, 2) and the cellar door at B(7, 10).

a. Find the distance AB.

b. Find the equation of line AB in the form $y = mx + c$.

c. A secret passage is perpendicular to AB and passes through the midpoint of AB. Where does it meet the y-axis?

d. A committee of 3 is chosen from 5 ghosts and 4 witches. In how many ways can it include at least one witch?

Extension

1. The houses on Spooky Street have two-digit numbers that leave remainder 3 when divided by 7. Find the sum of all these numbers.