Halloween maths activities for IGCSE and GCSE: KS3 / MYP

IGCSE Math Revision · MYP / KS3 (ages 11 to 14) · 31 October · Student sheet

Name _____ Class _____ Date _____

No calculator needed. Every answer works out exactly.

Starter (5 minutes)

1. A ghost floats 7 m above the ground, then sinks 12 m into a cellar. What is its height now?

2. The code on the witch's door is $3 + 4 \times 5$. What is the code?

3. Pumpkin soup for 4 bowls uses 600 g of pumpkin. How much pumpkin is needed for 6 bowls?

4. A bag holds 3 orange sweets and 5 green sweets. One is picked without looking. What is the probability that it is orange?

Main activity (30 minutes)

Task A: Pumpkin patch

A rectangular pumpkin patch is 12 m long and 8 m wide.

a. Find the area of the patch.

b. A fence goes all the way round the patch. How long is the fence?

c. Each pumpkin plant needs 4 m^2 of ground. How many plants fit in the patch?

d. The farmer sells pumpkins and lanterns in the ratio 5 : 2. She sells 35 items. How many are lanterns?

Task B: Trick or treat

Mia visits 20 houses. At each house the probability of getting a treat is 3/4.

a. How many treats would Mia expect to get?

b. At one house a bowl holds 6 toffees, 4 lollies and 2 chocolate spiders. Mia takes one without looking. Find the probability that she gets a chocolate spider, in its simplest form.

c. Find the probability that she does *not* get a lolly.

Extension

1. A haunted house has 3 doors and 4 staircases. A ghost picks one door and then one staircase. How many different routes are there? List them in a system to check.

2. The mean age of 4 vampires is 250 years. A fifth vampire joins and the mean age becomes 300 years. How old is the new vampire?