CLARITY EDUCATION SERIES · HALLOWEEN

Pumpkin Patch Maths

Money, percentages, ratio and area at a Halloween pumpkin farm.

AGES 11–14

Name _____ Class _____ Date _____

Calculators allowed. Show your working in the grid under each question. Give money answers to the nearest penny.

Pumpkin prices	
Small pumpkin	**£1.85**
Medium pumpkin	**£2.60**
Large pumpkin	**£4.35**
Giant pumpkin	**£7.90**

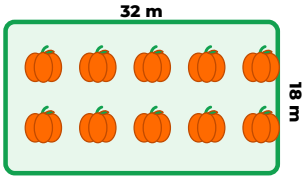
Lantern extras	
LED tea lights, pack of 6	**£3.30**
LED tea lights, pack of 24	**£11.76**
Carving kit	**£4.75**
Saturday deal	**20% off giants**

1 A family buys 3 small pumpkins and 2 medium pumpkins. (a) How much do they spend? (b) How much change do they get from a £20 note?

2 Using the Saturday deal, how much does a giant pumpkin cost on a Saturday?

3 A class has a budget of £60. It buys 12 medium pumpkins, 2 packs of 6 LED tea lights and 2 carving kits. (a) Find the total cost. (b) How much of the budget is left? (c) How many **small** pumpkins could the class buy with the money left?

4 The pumpkin patch is a rectangle 32 m long and 18 m wide. (a) Find its area. (b) Each pumpkin plant needs 4 m². How many plants fit? (c) Each plant grows 2.5 pumpkins on average. How many pumpkins is that?



5 The farm's 360 pumpkins are orange, white and green in the ratio 6 : 2 : 1. How many of each colour are there?

6 Last year 1,250 people visited the farm. This year 1,450 visited. Find the percentage increase.

7 A round pumpkin is 28 cm across. Using $\pi = 3.14$, find the distance around its middle (its circumference).

8 Growing the 360 pumpkins cost the farm £450. It sells 85% of them for £2.60 each. (a) How many does it sell? (b) How much money comes in? (c) Find the profit. (d) Write the profit as a percentage of the cost, to 1 decimal place.

9 Which pack of LED tea lights is better value? Show the cost of **one** tea light in each pack.