

Holi maths activities for IGCSE and GCSE

IGCSE Math Revision · IGCSE and GCSE (Higher and Extended) · Student sheet

Name _____

Class _____

Date _____

The starter is non-calculator. A calculator is allowed in the main activity.

Starter (5 minutes)

1. Write $15 : 25$ in its simplest form.
2. Share 360 g in the ratio 4 : 5.
3. Find 30% of 250.
4. 6 packets of colour make 21 cups of paint. How many cups do 10 packets make?

Main activity (35 minutes)

Task A: Colour recipes

Pink powder is red and white in the ratio 2 : 5. Orange powder is red and yellow in the ratio 3 : 4.

- a. How much red and how much white are in 350 g of pink?
- b. You have 120 g of red and plenty of white. What is the most pink you can make?
- c. 350 g of pink is mixed with 350 g of orange. What percentage of the mixture is red, to 3 significant figures?

Task B: Mixing two mixtures

Mix A is 25% red and mix B is 75% red; the rest of each is yellow. They cost £3.20 and £4.00 per 100 g.

- a. How much of each is needed to make 400 g of a mixture that is 40% red?
- b. Find the cost of the mixture in part (a).
- c. 200 g of A is mixed with 300 g of B. What percentage of the mixture is red?

Task C: Water balloons

A cylindrical water tank has radius 30 cm and height 80 cm.

- a. Find the volume of the tank in litres, to 3 significant figures. (1 litre = 1000 cm³.)
- b. Each balloon holds 0.3 litres. How many balloons can be filled completely from a full tank?
- c. 4 people take 30 minutes to fill all the balloons. How long would 6 people take, working at the same rate?

Extension

1. How much red must be added to 700 g of pink (red : white = 2 : 5) to make red : white = 1 : 1?
2. Red and blue powder are in the ratio 3 : 7. After 40 g of red is added the ratio is 1 : 1. How much of each was there at first?