

Name _____

Unit Project Growing Plants



Project

You work at a large plant nursery. There are several large greenhouses used for plants. You have to decide how much of each greenhouse to use for each plant.

Plan

Two greenhouses that are the same size have been prepared for planting. Greenhouse A is divided into 4 equal sections and Greenhouse B is divided into 8 equal sections.

The table below shows the number of sections you will use for each type of plant in Greenhouse A.

Greenhouse A	
Type of Plant	Number of Sections
Begonias	1
Dahlias	2
Petunias	1

A. What fraction of Greenhouse A will be used for dahlias?

Write the fraction in simplest form. _____

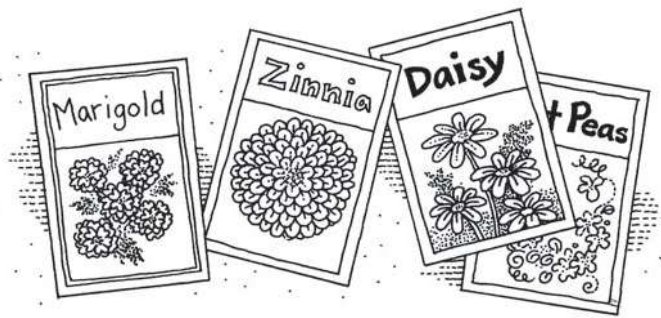
B. If you want to use the same fraction of Greenhouse B for dahlias, how many sections will you need to use? **Explain** how you decided.

Put It Together

A. Greenhouse C is divided into 12 sections. The table shows the types of plants you will plant in Greenhouse C. Use the information to complete the table.

Greenhouse B

Type of Plant	Number of Sections
Daisies	
Marigolds	
Sweet Peas	
Zinnias	



Information

- You want to use $\frac{1}{3}$ of the greenhouse for Sweet Peas.
- You want to use $\frac{1}{6}$ of the greenhouse for daisies.
- The fraction of the greenhouse you want to use for marigolds equals the fraction you want to use for zinnias.

B. Greenhouse A and Greenhouse C are the same size. Is the fraction of Greenhouse A used for petunias less than, greater than, or equal to the fraction of Greenhouse C used for daisies? **Explain** how you decided.

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Reflect

This table shows the types of plants you will plant in the 3 greenhouses. Use the given information and what you know to complete the table. Write the fractions in simplest form.

Plants in Greenhouses A, B, and C

Greenhouse A: 4 Sections		
Type of Plant	Number of Sections	Fraction of Greenhouse
Begonias	1	
Dahlias	2	
Petunias	1	
Greenhouse B: 12 Sections		
Daisies		$\frac{1}{6}$
Marigolds		
Sweet Peas		$\frac{1}{3}$
Zinnias		
Greenhouse C: 8 Sections		
Cosmos		$\frac{3}{8}$
Dahlias		$\frac{1}{2}$
Sweet Peas		$\frac{1}{8}$

Order the plants in Greenhouse C from least part of the greenhouse used to the greatest part of the greenhouse used.

Go Beyond

The nursery owner orders bags of seed. She tells you that $\frac{1}{3}$ of the bags contain cucumber seeds, $\frac{1}{2}$ contain tomato seeds, and $\frac{1}{6}$ contain green pepper seeds.



- A. Could the owner have ordered 10 bags of seed?
Explain your reasoning.

- B. List the types of seeds in order from the one with the greatest number of bags to the one with the least number of bags.
Explain your work.

- C. The total number of bags of seed ordered is 24 bags. Find the number of bags that contain tomato seeds, the number that contain cucumber seeds, and the number that contain green pepper seeds. **Explain** your work.
