

Valentine's Day #2

Kinzie, Kellie, and Kyler are triplets. Some years, they give everyone in their class a valentine from all three of them, and other years they each give their own valentines. They never give valentines to each other at school.

1. There are 27 students in their class, including the triplets. There are 11 valentines in each package. If they give a valentine from all three of them, how many packages of valentines will they need? How many valentines are left over?

2. The triplets decide to each give their own valentines. They all want to use the same valentines. How many packages of valentines will they need? How many valentines are left over?

3. Compare your answers. Was your answer to Problem 2 what you expected? Explain why or why not.

4. The triplets' mom found some different valentines that have 8 valentines per box. How many boxes of these valentines will they need if they each give a valentine to the class? How many valentines are left over?

Valentine's Day #2 **Answers**

Kinzie, Kellie, and Kyler are triplets. Some years, they give everyone in their class a valentine from all three of them, and other years they each give their own valentines. They never give valentines to each other at school.

1. There are 27 students in their class, including the triplets. There are 11 valentines in each package. If they give a valentine from all three of them, how many packages of valentines will they need? How many valentines are left over?

$$27 - 3 = 24 \text{ students}$$

$$11 + 11 + 11 = 33 \text{ valentines} \quad \text{They will need 3 packages.}$$

$$33 - 24 = 9 \quad \text{There will be 9 valentines left over.}$$

2. The triplets decide to each give their own valentines. They all want to use the same valentines. How many packages of valentines will they need? How many valentines are left over?

$$24 + 24 + 24 = 72 \text{ valentines needed}$$

$$11 \times 7 = 77 \text{ valentines} \quad \text{They will need 7 packages.}$$

$$77 - 72 = 5 \quad \text{There are 5 valentines left over.}$$

3. Compare your answers. Was your answer to Problem 2 what you expected? Explain why or why not.

Answers will vary. Students might recognize that it doesn't take three times as many packages, or that there are fewer left over.

4. The triplets' mom found some different valentines that have 8 valentines per box. How many boxes of these valentines will they need if they each give a valentine to the class? How many valentines are left over?

$$8 \times 9 = 72 \text{ valentines} \quad \text{They will need 9 boxes.}$$

$$72 - 72 = 0 \quad \text{There are no valentines left over.}$$