

Exploring Equivalent Fractions

NCTM Standards 1, 2, 6, 7, 9, 10

- 1 Alice has some bags of marbles. Each bag has 4 marbles, and 3 of the 4 marbles are green.

	1 Bag	2 Bags	3 Bags	4 Bags	5 Bags	6 Bags	7 Bags	8 Bags	9 Bags	10 Bags
Number of green marbles	3	6	9	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Number of Alice's marbles	4	<input type="text"/>	<input type="text"/>	16	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- 2 Ben has bags with 3 marbles. Each bag contains 2 green marbles.

	1 Bag	2 Bags	3 Bags	4 Bags	5 Bags	6 Bags	7 Bags	8 Bags	9 Bags	10 Bags
Number of green marbles	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Number of Ben's marbles	3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- 3 In Kathryn's bags, 5 of the 6 marbles are green.

	1 Bag	2 Bags	3 Bags	4 Bags	5 Bags	6 Bags	7 Bags	8 Bags	9 Bags	10 Bags
Number of green marbles	5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Number of Kathryn's marbles	6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- 4 Paul has bags with 9 marbles. Each bag contains 7 green marbles.

	1 Bag	2 Bags	3 Bags	4 Bags	5 Bags	6 Bags	7 Bags	8 Bags	9 Bags	10 Bags
Number of green marbles	7	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Number of Paul's marbles	9	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

- 5 Nina has **60** stickers, and **1** of every **10** stickers has glitter. How many stickers with glitter does Nina have?

_____ stickers with glitter

Nina arranges her 60 stickers in an album. She puts 3 big stickers and 2 small stickers on each page.

- 6 How many pages does she fill?

_____ pages

- 7 How many small stickers does she have?

_____ small stickers

- 8 How many big stickers does she have?

_____ big stickers

- 9 **Challenge** In **5** bags, there are a total of **150** marbles. Each bag has the same number of marbles. How many marbles would there be in **8** bags if the number of marbles in each bag remains the same?

_____ marbles

