

# Investigating Divisibility by 3, 6, and 9

Put a  in each true box.

Divisible by . . .	2?	3?	5?	6?	9?	10?
① 432	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
② 465	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
③ 510	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
④ 2,988	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
⑤ 31,842	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
⑥ 702,945	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Use each of the digits 0, 3, and 6 once to make a 3-digit number that matches the clues.

⑦

- Divisible by 3
- Divisible by 9
- Not divisible by 6

⑧

- Divisible by 3 and 9
- Divisible by 6
- Hundreds digit is greater than both the tens and ones digits

⑨

- Divisible by 9
- Divisible by 3 and 6
- Ones digit is greater than both the tens and hundreds digits

⑩

- Divisible by 6
- Divisible by 3 and 9
- Tens digit is greater than hundreds and ones digits