

# Investigating Divisibility by 2, 5, and 10

NCTM Standards 1, 2, 7, 8

## Solve the Mystery Number Puzzles.

## Clues

## Workspace

### 1 Puzzle A

- Divisible by 10
- Less than 300
- Multiple of 11
- Sum of the digits = 4

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### 2 Puzzle B

- Divisible by 2
- Less than 700, but greater than 680
- Not divisible by 10
- Sum of the digits = 23

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### 3 Puzzle C

- Divisible by 5 and 2
- Less than 500
- Sum of the digits = 12
- At least one digit is odd

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### 4 Puzzle D

- Divisible by 5
- Multiple of 50
- Sum of the digits is a multiple of 5

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To solve these puzzles, you may need to think about more than one clue at a time.

Clues

Workspace

5 Puzzle E

- Divisible by 10
- Greater than 200, but less than 300
- Sum of the digits is a multiple of 3
- Sum of the digits is even

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6 Write a word problem with an answer that is a number divisible by 2, 5, and 10. Show the solution.

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7 The number on Tyler's locker is divisible by 2, 5, and 10. Which of these is Tyler's locker? Explain.

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|-----|-----|-----|-----|-----|-----|-----|-----|
| 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 |
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8 **Challenge** Fill in the trees in different ways. Prime factors must be in the circles.

