Lesson 8: Different Ways to Decompose

- Let's compare different ways to subtract.

Warm-up: Number Talk: Multiples of 10

Find the value of each expression mentally.
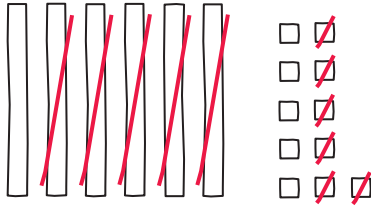
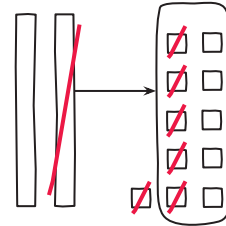- $18 + 10 + 10$

- $18 + 20 + 10$

- $38 - 20$

- $48 - 30$

8.1: Aren't You Missing Something?

Lin and Clare made base-ten diagrams to find the value of $71 - 56$.

Lin	Clare

1. What do you notice about their work? What do you wonder?

_____

_____

_____

2. Lin and Clare each wrote equations to show their thinking. Explain how you know which group of equations matches Lin's work and which matches Clare's work.

A

$71 - 50 = 21$
$21 = 10 + 11$
$11 - 6 = 5$
$10 + 5 = 15$

B

$71 = 60 + 11$
$11 - 6 = 5$
$60 - 50 = 10$
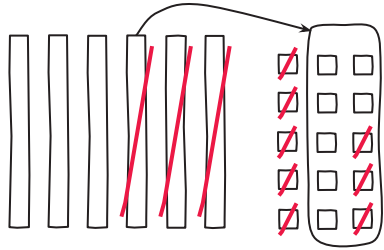$10 + 5 = 15$

_____

_____

_____

3. How are Lin and Clare's methods the same? How are they different?

_____

_____

8.2: Different Ways to Decompose

Andre found the value of $65 - 28$. He made a base-ten diagram and wrote equations to show his thinking.

$$65 - 28$$
$$65 - 20 = 45$$
$$45 = 30 + 15$$
$$15 - 8 = 7$$
$$30 + 7 = 37$$

1. Do you think Andre's method is more like Clare's or Lin's method? Explain.

_____

_____

_____

2. Find the value of each difference. Show your thinking.

    a. $34 - 18$

b. $82 - 37$

c. $71 - 53$