G5-M4-Lesson 7
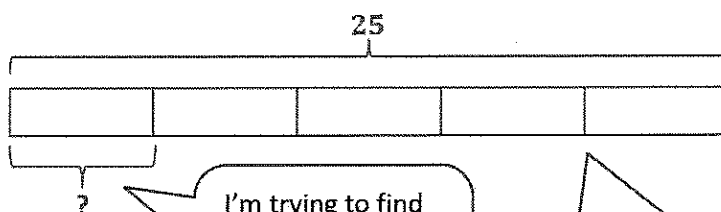
Solve using a tape diagram.

> I can draw a tape diagram and label the whole as 25. I need to find fifths, so I partition the whole into five units, or parts.

a. $\frac{1}{5}$ of $25 = 5$

$$25$$

?

$5\ units = 25$

$1\ unit = 25 \div 5 = \dfrac{25}{5} = 5$

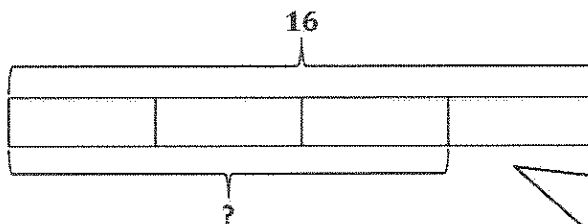> I'm trying to find 1 fifth. That's what the question mark shows.

> I can visualize each unit of the tape diagram having a value of 5: 5, 10, 15, 20, 25.

> The tape diagram shows that 5 units equal 25. If I want to find the value of 1 unit, I need to divide 25 by 5.

> I interpreted $25 \div 5$ as a fraction: $\dfrac{25}{5}$. Then I simplified $\dfrac{25}{5}$ as 5.

b. $\frac{3}{4} \times 16 = 12$

> I can interpret $\frac{3}{4} \times 16$ as $\frac{3}{4}$ of 16.

$$16$$

?

> The tape diagram shows the whole as 16 partitioned into 4 parts. I found the value of one unit and then multiplied that by three to find the value of 3 units.

$4\ units = 16$

$1\ unit = 16 \div 4 = \dfrac{16}{4} = 4$

$3\ units = 3 \times 4 = 12$

> I can visualize each unit of the tape diagram having a value of 4: 4, 8, 12, 16.

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> I can interpret this as $\frac{5}{6}$ of ? = 25.

c. $\frac{5}{6}$ of a number is 25. What's the number?

> In this problem, I am given the value of some parts, and I need to find the value of the whole.

?

25

> $\frac{5}{6}$ = 25, so these 5 units have a value of 25. If I can find the value of 1 unit, I can find the value of 6 units, or the whole.
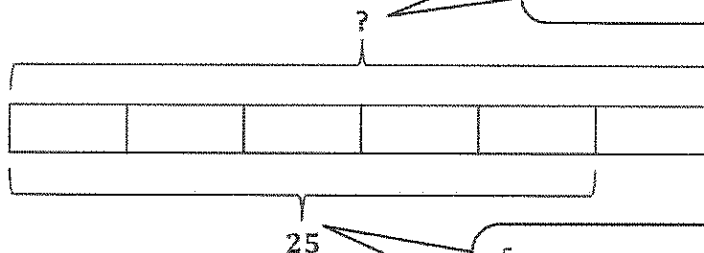
$5\ units = 25$

$1\ unit = 25 \div 5 = \frac{25}{5} = 5$

$6\ units = 6 \times 5 = 30$

> I can visualize each unit of the tape diagram having a value of 5: 5, 10, 15, 20, 25, 30.

The number is 30.