## RELATE ADDITION AND SUBTRACTION LENGTHS

Concrete to abstract measuring the lengths of string using measurement tools represent length with tape diagrams to represent and compare lengths.

1) Vanessa's ribbons.

a) Measure the length of ribbon a with your centimeter ruler and your paper clip write the measurements the lines below.
> __ centimeters.

_ paper clips.
b) Explain why the number of centimeters is larger than the number of paper clips. Use pictures or words.

## Solution:



Here, 1 paper clip = $\qquad$ centimeters.

5 paper clips distance $=\ldots$ centimeters of distance. Number of centimeters is larger than the number of paper clips.
c) Estimate the length of ribbon ' $B$ ' in paper clips.
_ paper clips.
d) How much longer is ribbon $A$ than ribbon B? Give your answer in centimeters.
$\qquad$ centimeters.
e) Vanessa is using the ribbons to wrap a gift. If she tapes the ribbons together with no overlaps, how many centimeters of ribbon does she have altogether.

Vanessa have the ribbons altogether to wrap a gift $=10+_{\ldots}=\ldots \quad \mathrm{cms}$.
f) If Vanessa needs 20 centimeters of ribbon, how much more does need?

$$
16+\ldots=20
$$

By using tap diagram:

| 16 | +1 |  | +1 |  |  |  | +1 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |  |  |

She needs $\qquad$ centimeters more.

