

Matemática em Libras



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Professora Surda
Zanúbia Dada



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Parte 4

Quatro operações

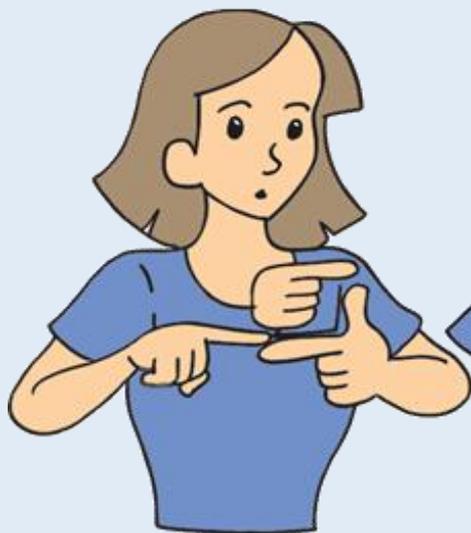
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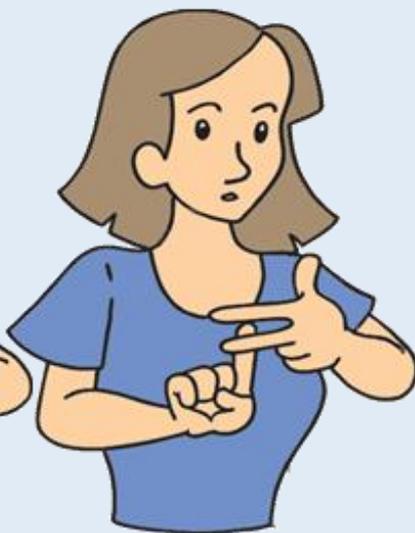


Campo Grande - MS
2015

Quatro Operações



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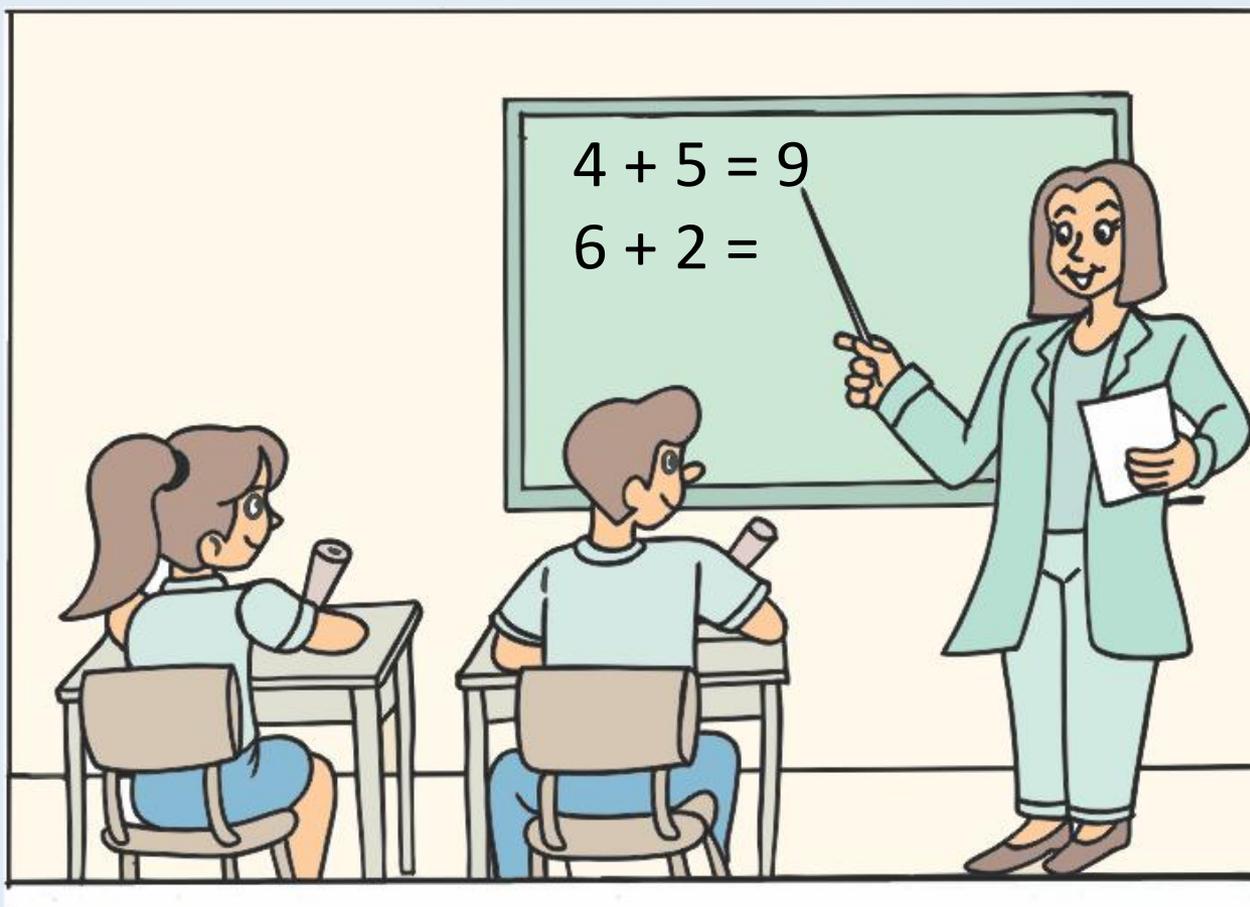


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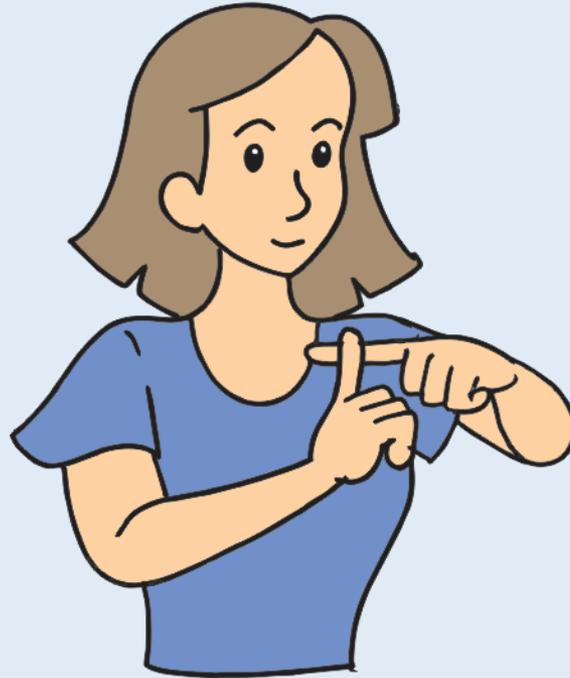
x

Ensinando os alunos surdos como fazer adição



Adição

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Dinâmica de Adição em Libras

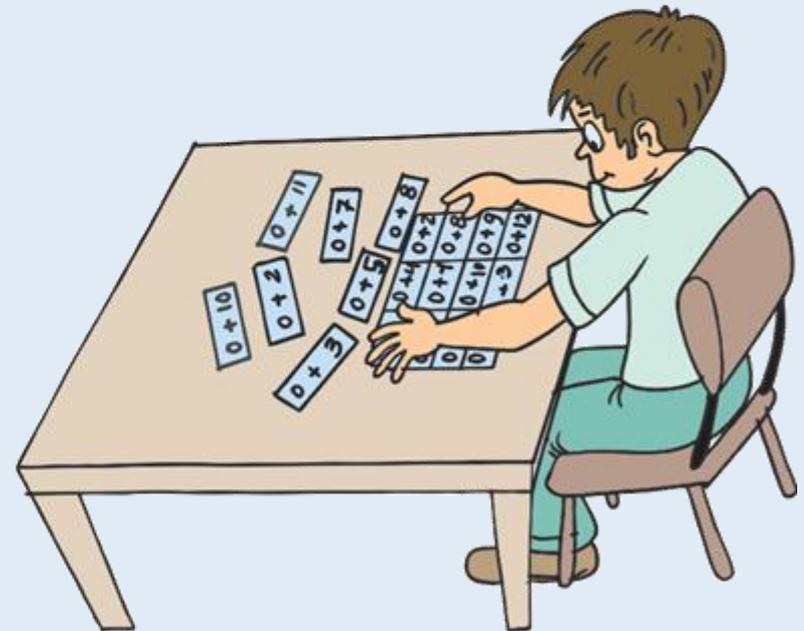
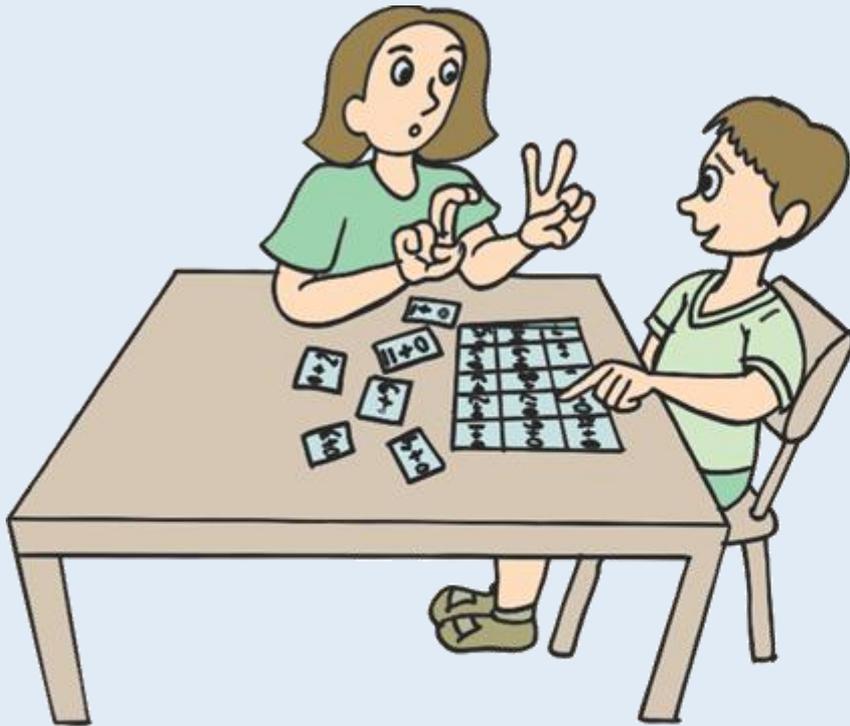
$2 + 1$	$1 + 0$	$5 + 4$
$4 + 3$	$4 + 1$	$1 + 1$
$0 + 2$	$2 + 6$	$3 + 3$

$2 + 1$	$1 + 0$	$5 + 4$
$4 + 3$	$4 + 1$	$1 + 1$
$0 + 2$	$2 + 6$	$3 + 3$

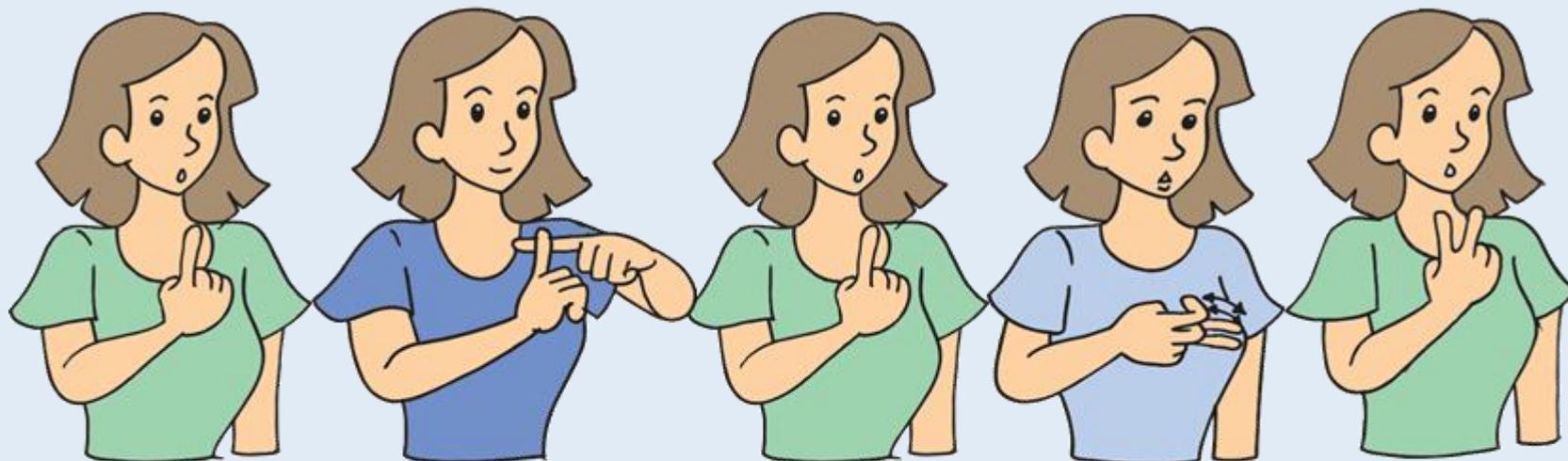
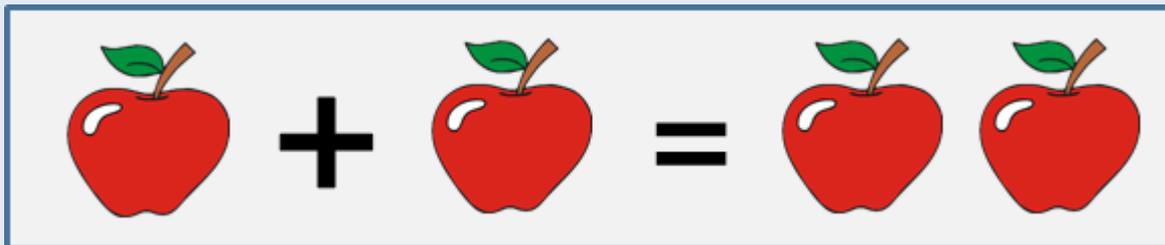
		
		
		

3	1	<u>9</u>
7	5	2
4	8	<u>6</u>

Ensinar em Libras, depois com dinâmica.

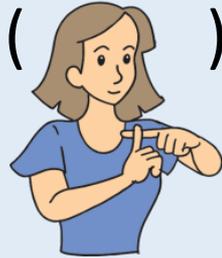


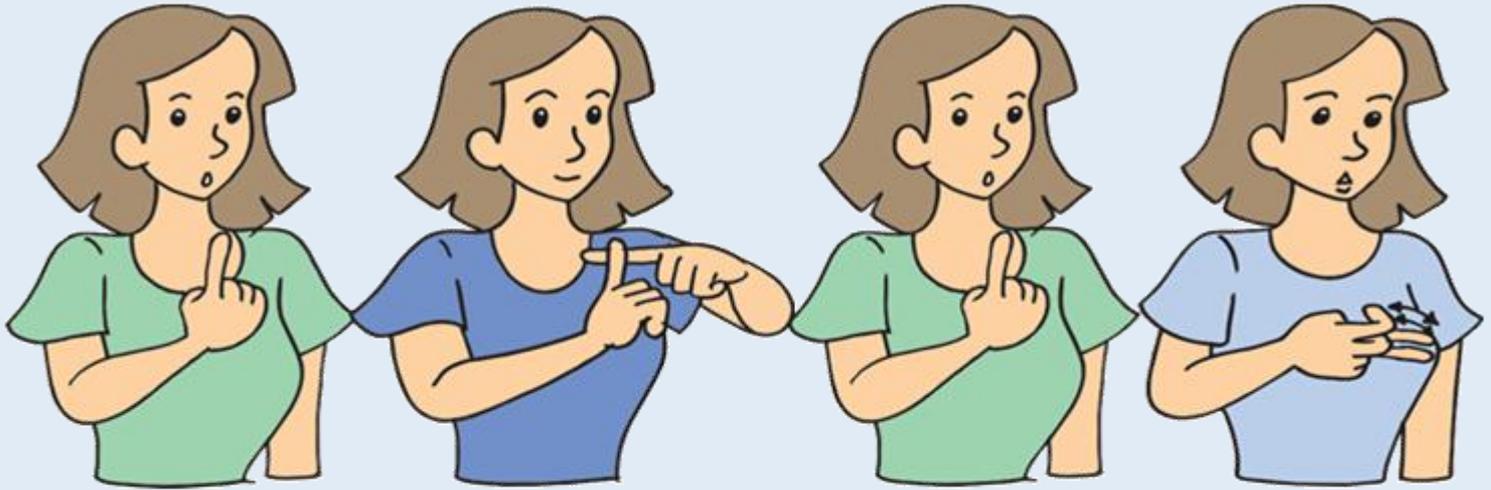
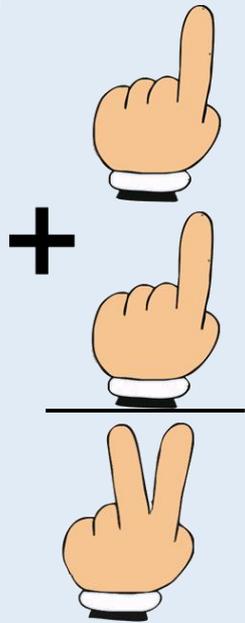
É importante a visualização de figuras para as crianças.



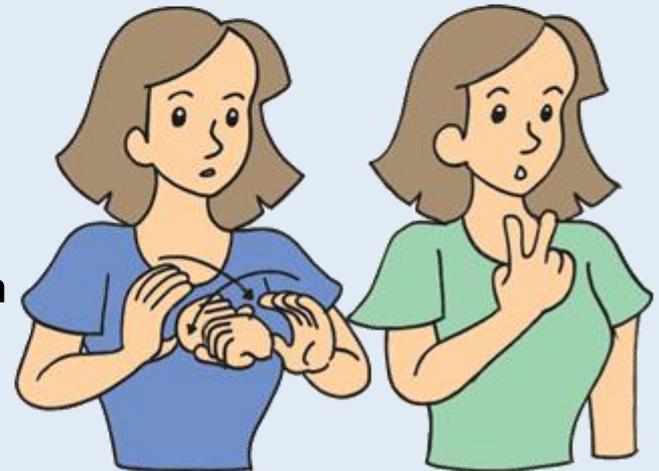
Na representação com figuras utiliza esse **sinal**:



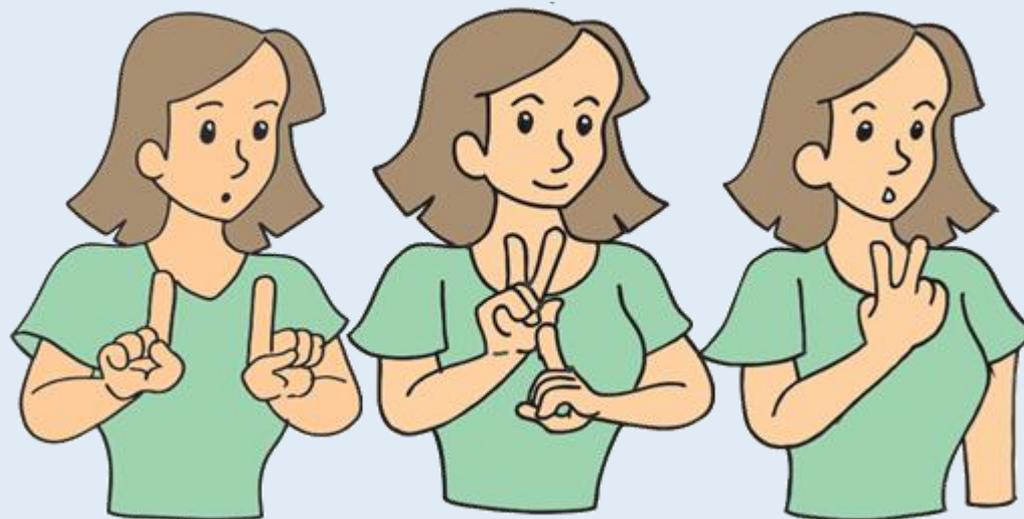
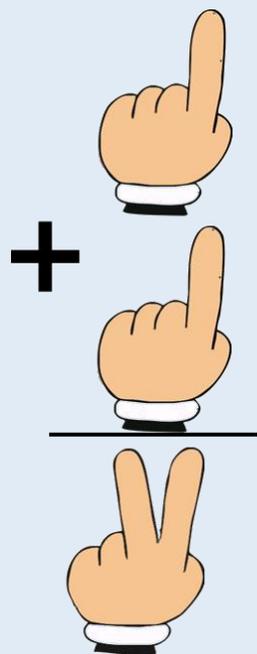
Para efetuar a adição utiliza-se o sinal ().



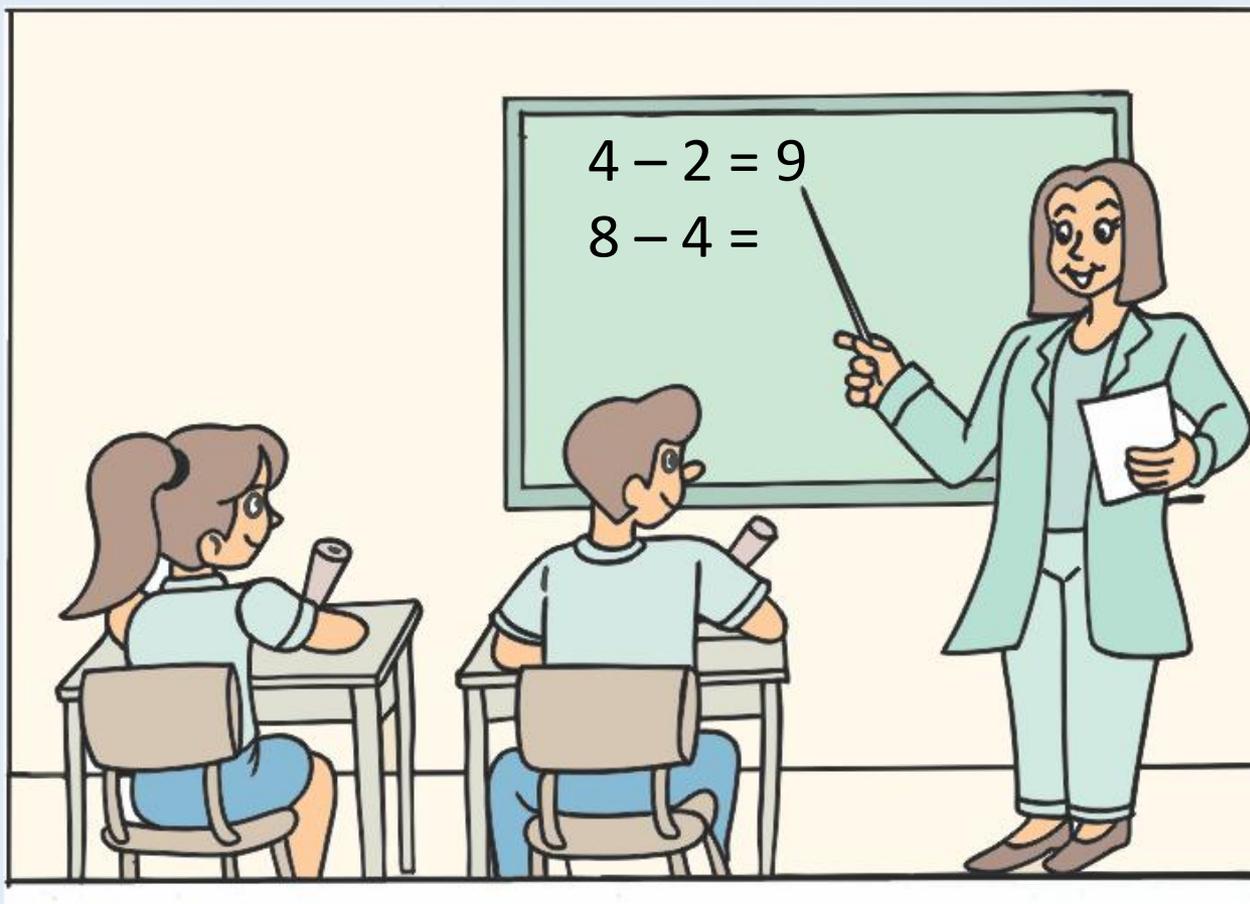
Para o resultado da **soma** utiliza-se esse sinal:



Observe nas imagens a maneira, utilizando Libras, de como obter o resultado:



Ensinando os alunos surdos como fazer subtração

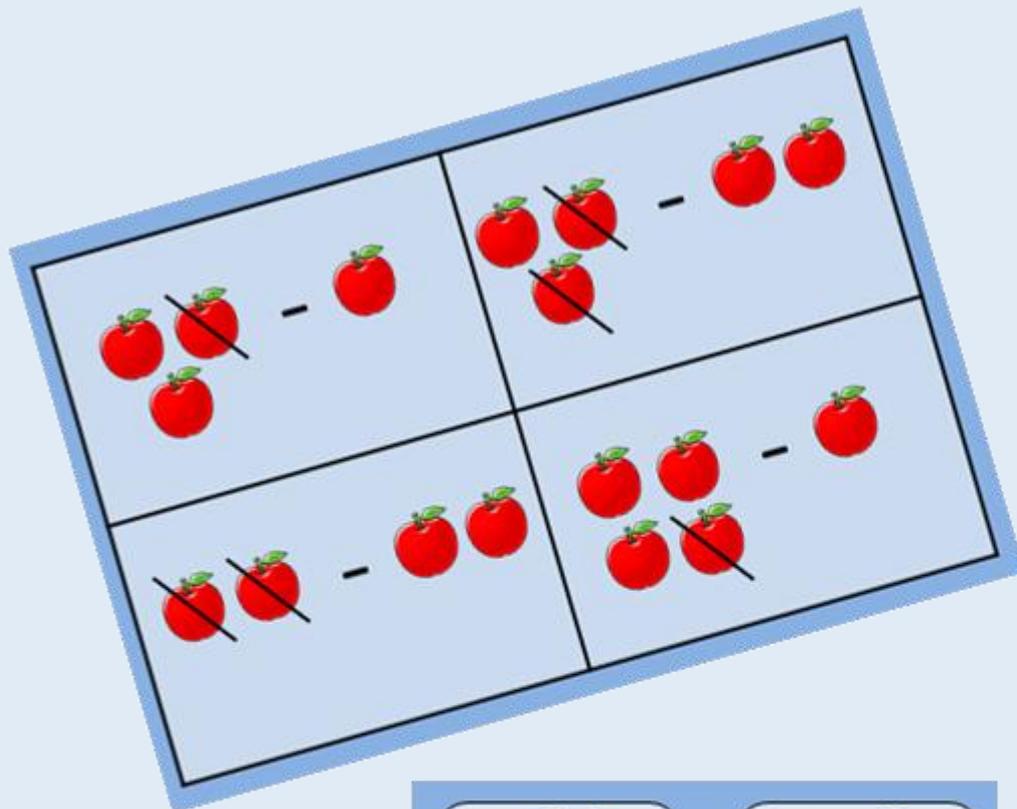


Subtração

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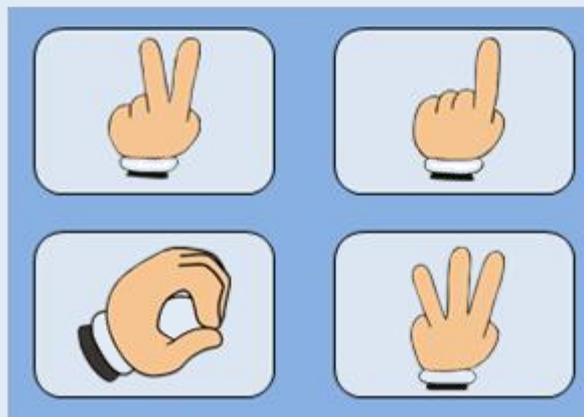


Dinâmica de Subtração em Libras

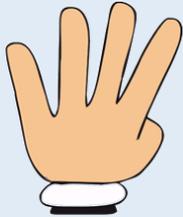
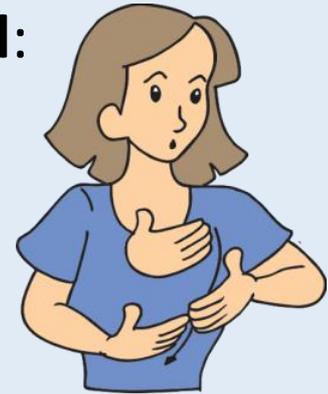


$3 - 1$	$3 - 2$
$2 - 2$	$4 - 1$

2	1
0	3



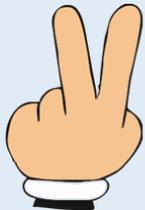
O resultado da **diferença** usa-se este sinal:



minuendo

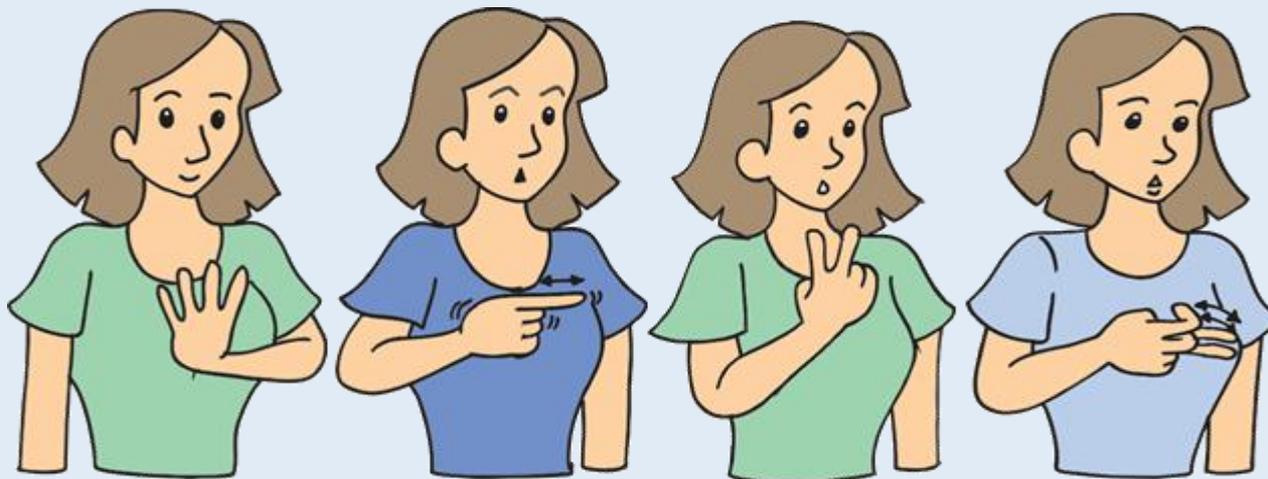
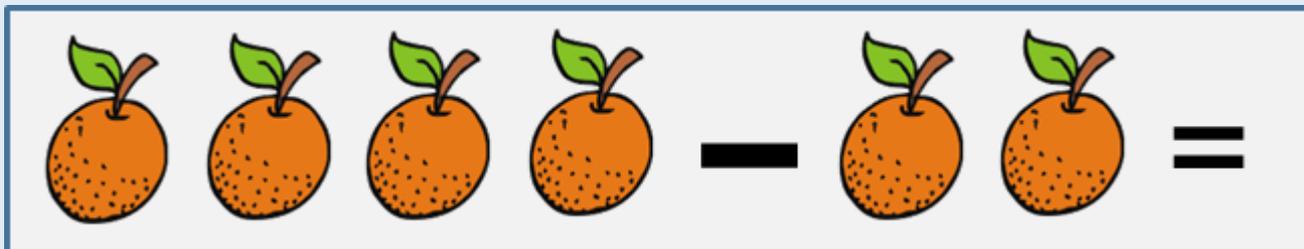


subtraendo



diferença e resto

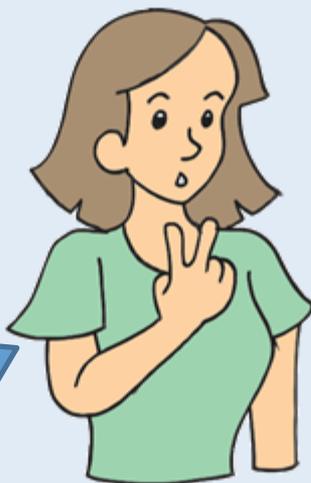
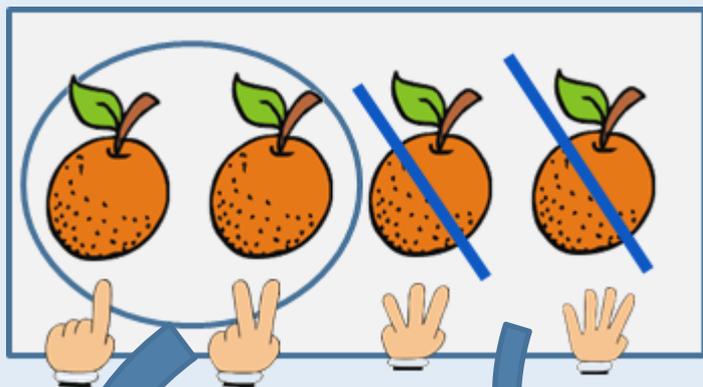
Na subtração também é possível usar figuras para representação.



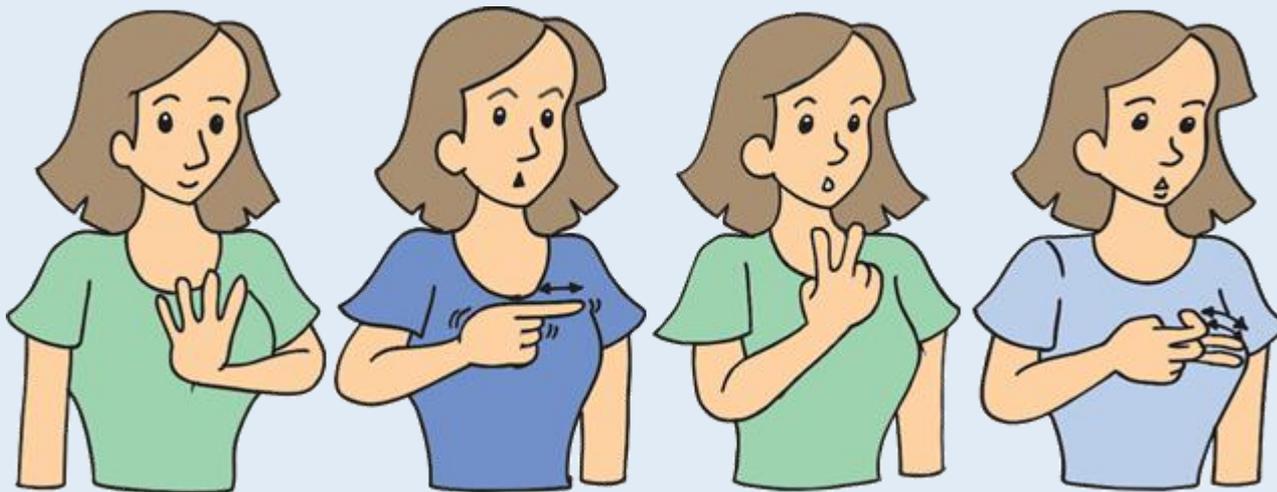
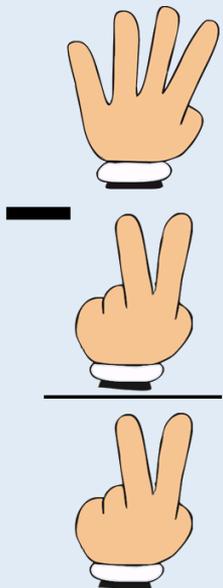
Na representação com figuras **utiliza** este **sinal**:



$$4 - 2 =$$



Para efetuar a **subtração** (minuendo e subtraendo) usa-se este sinal:

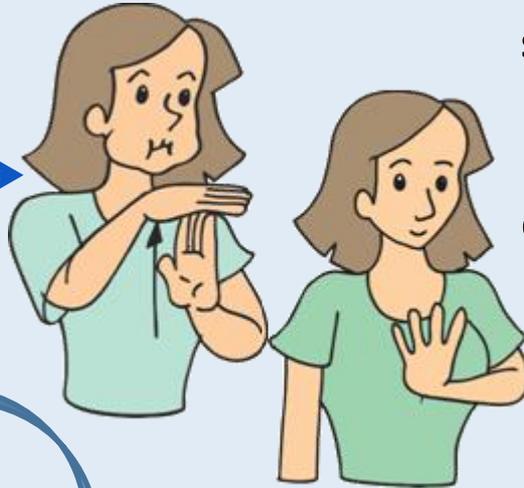


O resultado da **diferença** usa-se este **sinal**:



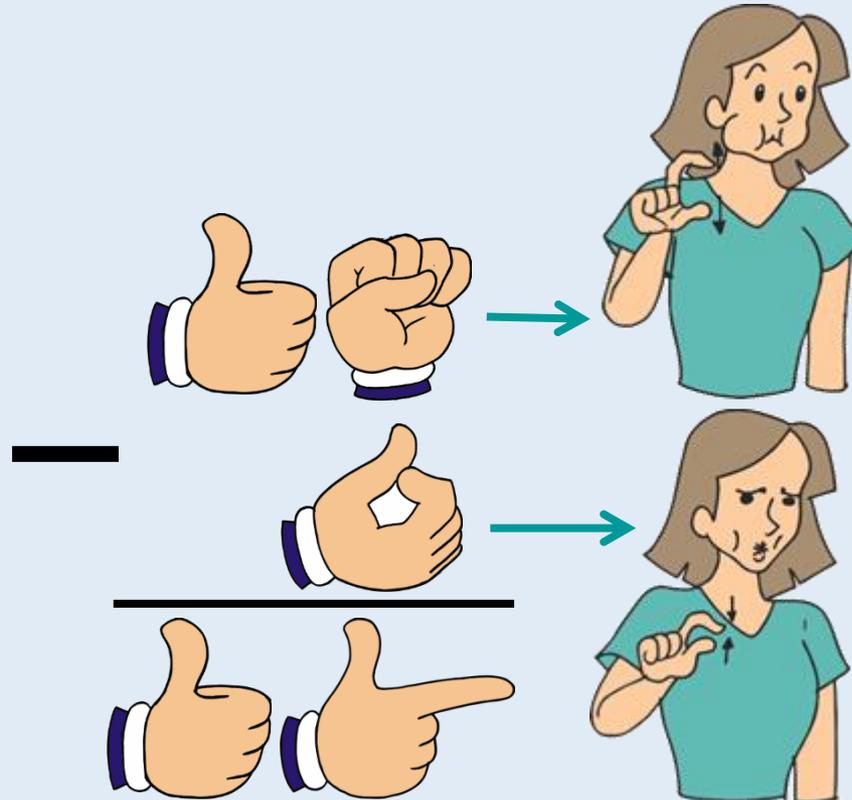
Observe a maneira de calcular a **subtração**:

- 1 - Visualizar o minuendo
- 2 - Partindo do subtraendo verificar quantos faltam para alcançá-lo.



Observe a maneira de calcular a **subtração** com dezena.
Começar pela unidade, verificar o algarismo, quando minuendo é maior que subtraendo efetuar o cálculo, conforme a imagem.

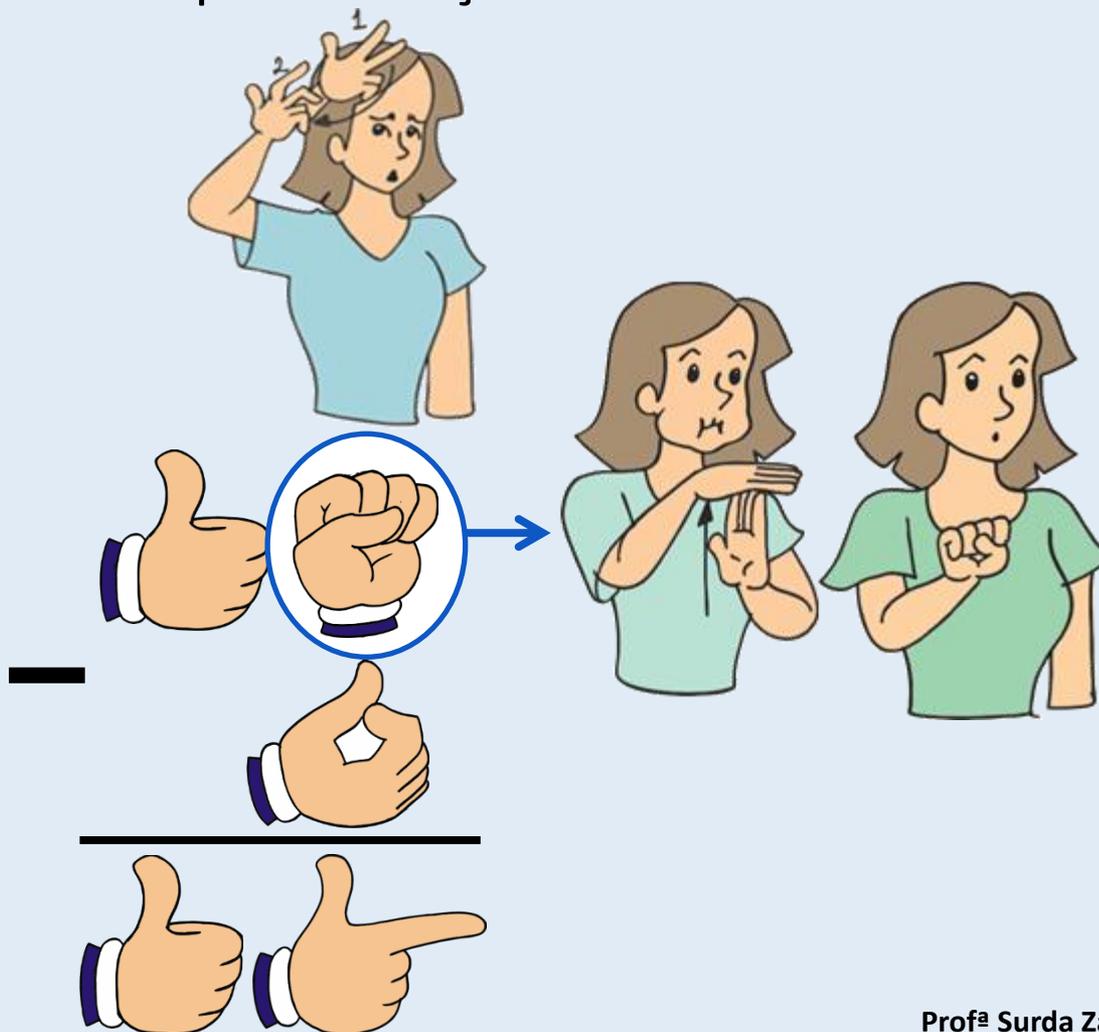
$$18 - 6 =$$



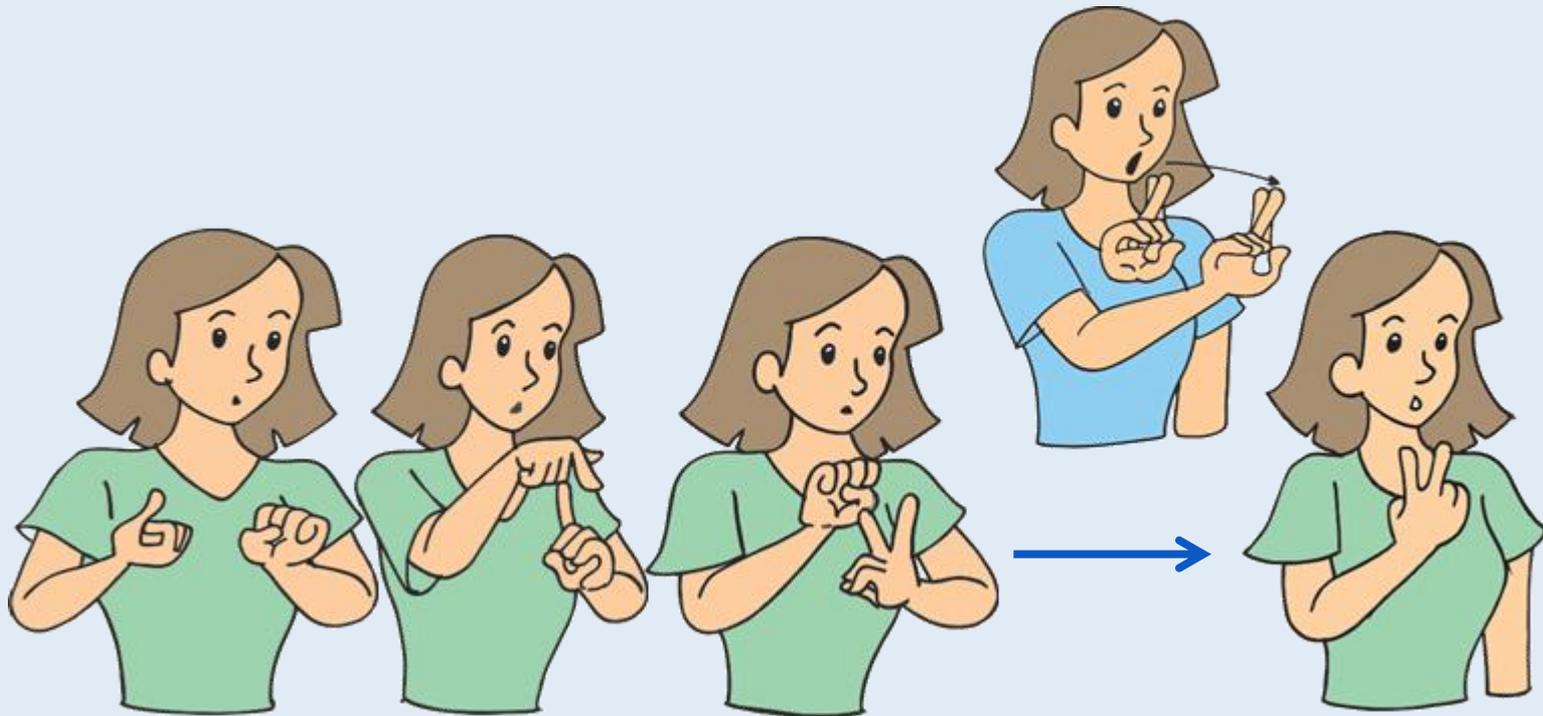
Observe a maneira de calcular a subtração:

1 - Visualizar o minuendo

2 – Partindo do subtraendo verificar quantos faltam para alcançá-lo.

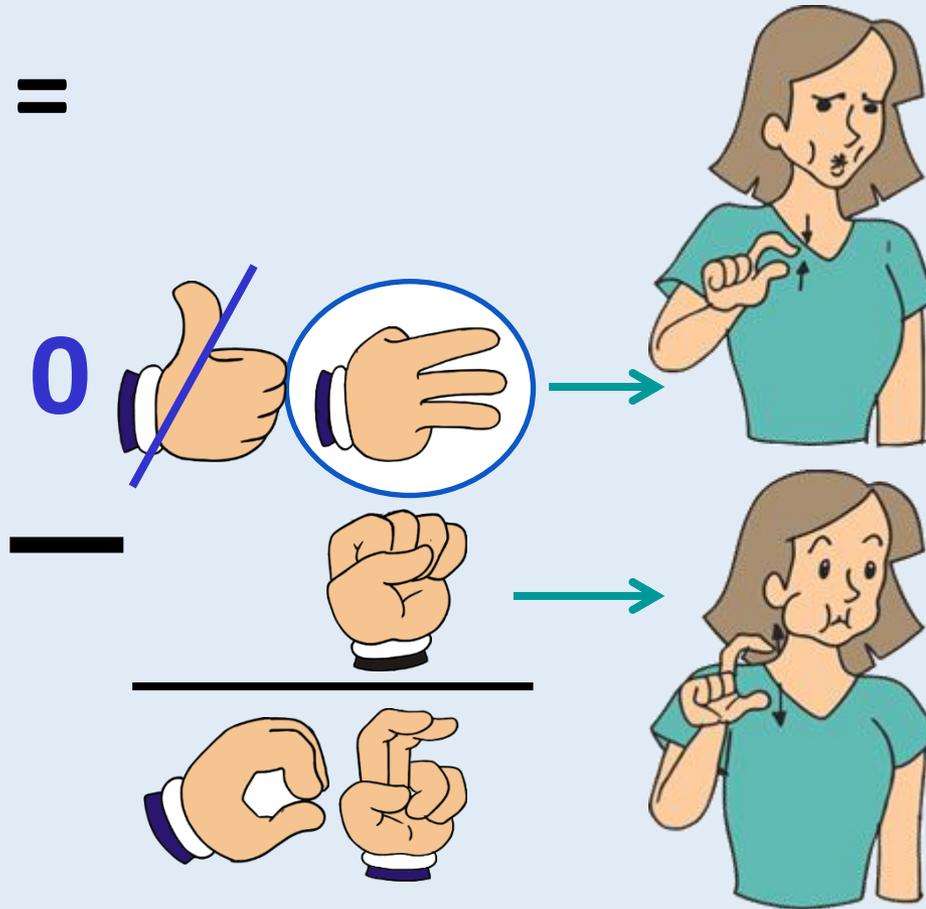


Observe a maneira de calcular a subtração com dezena.
Começar pela unidade, verificar qual é o algarismo ,
quando minuendo é menor que subtraendo efetuar **normal**.
Depois realizar o cálculo conforme a imagem.



Observe a maneira de calcular a **subtração** com dezena.
Começar pela unidade, verificar o algarismo , quando minuendo
é menor que subtraendo efetuar o cálculo, conforme a imagem.

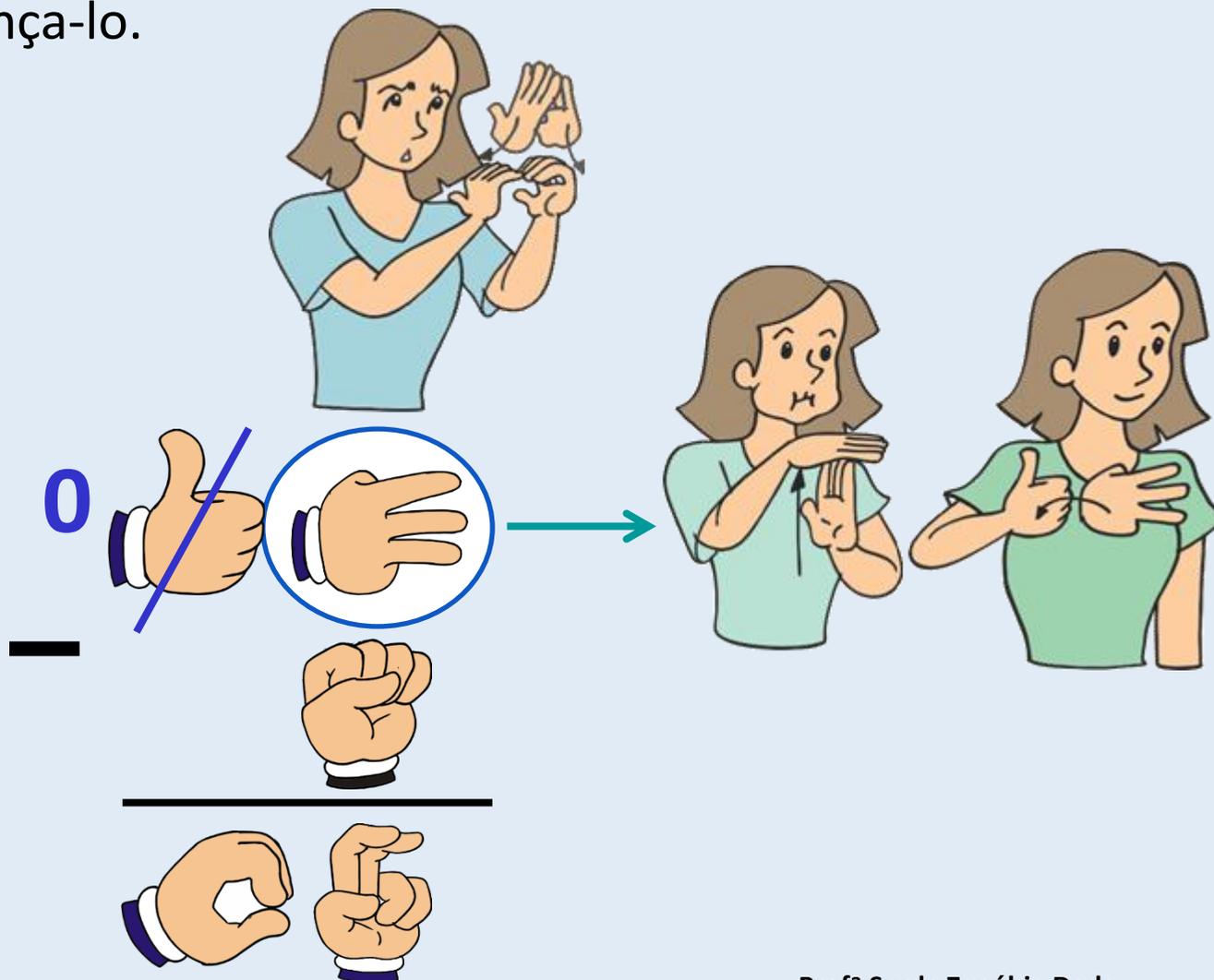
$$13 - 8 =$$



Observe a maneira de calcular a subtração:

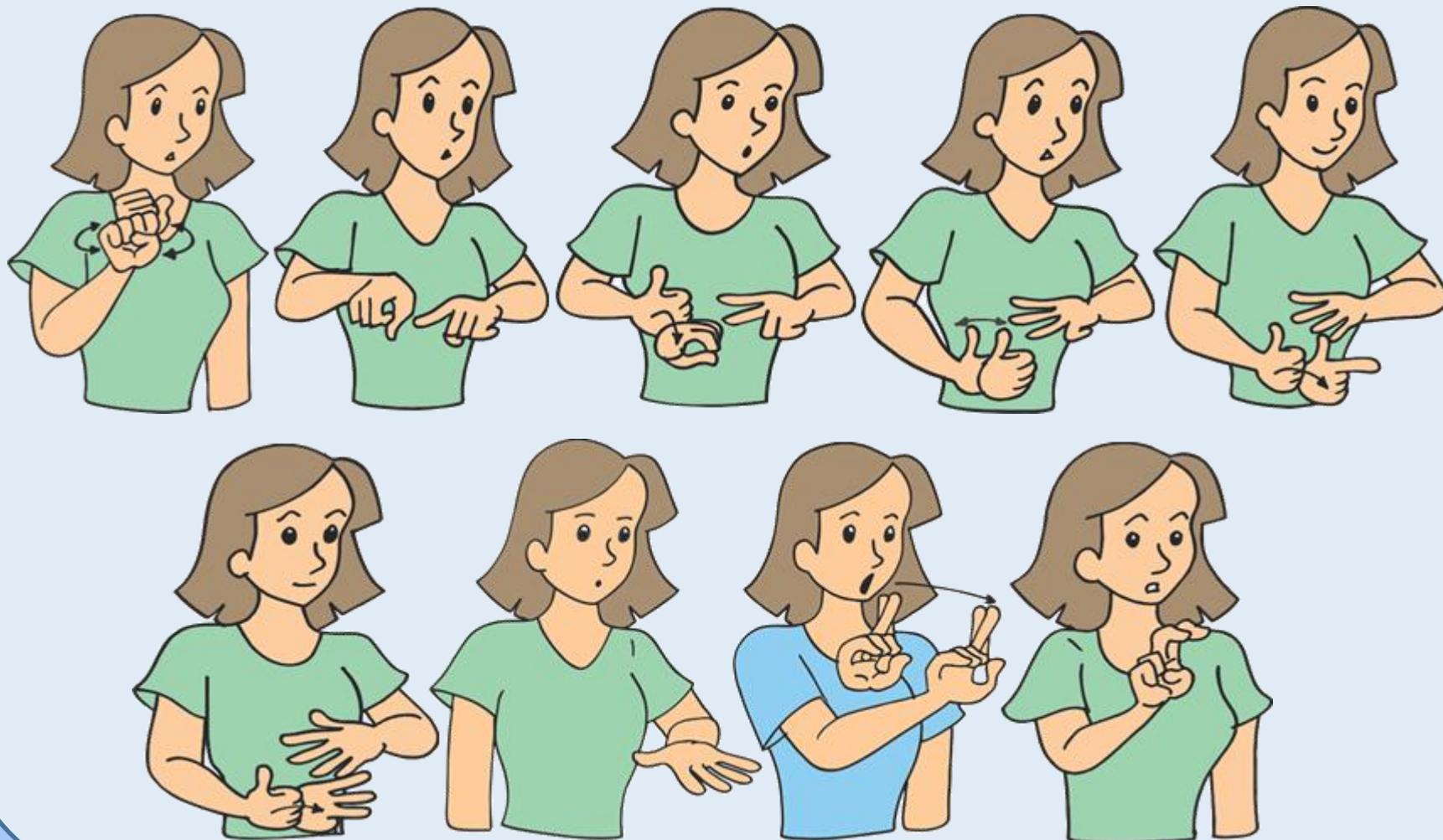
1 - Visualizar o minuendo

2 – Partindo do subtraendo verificar quantos faltam para alcançá-lo.

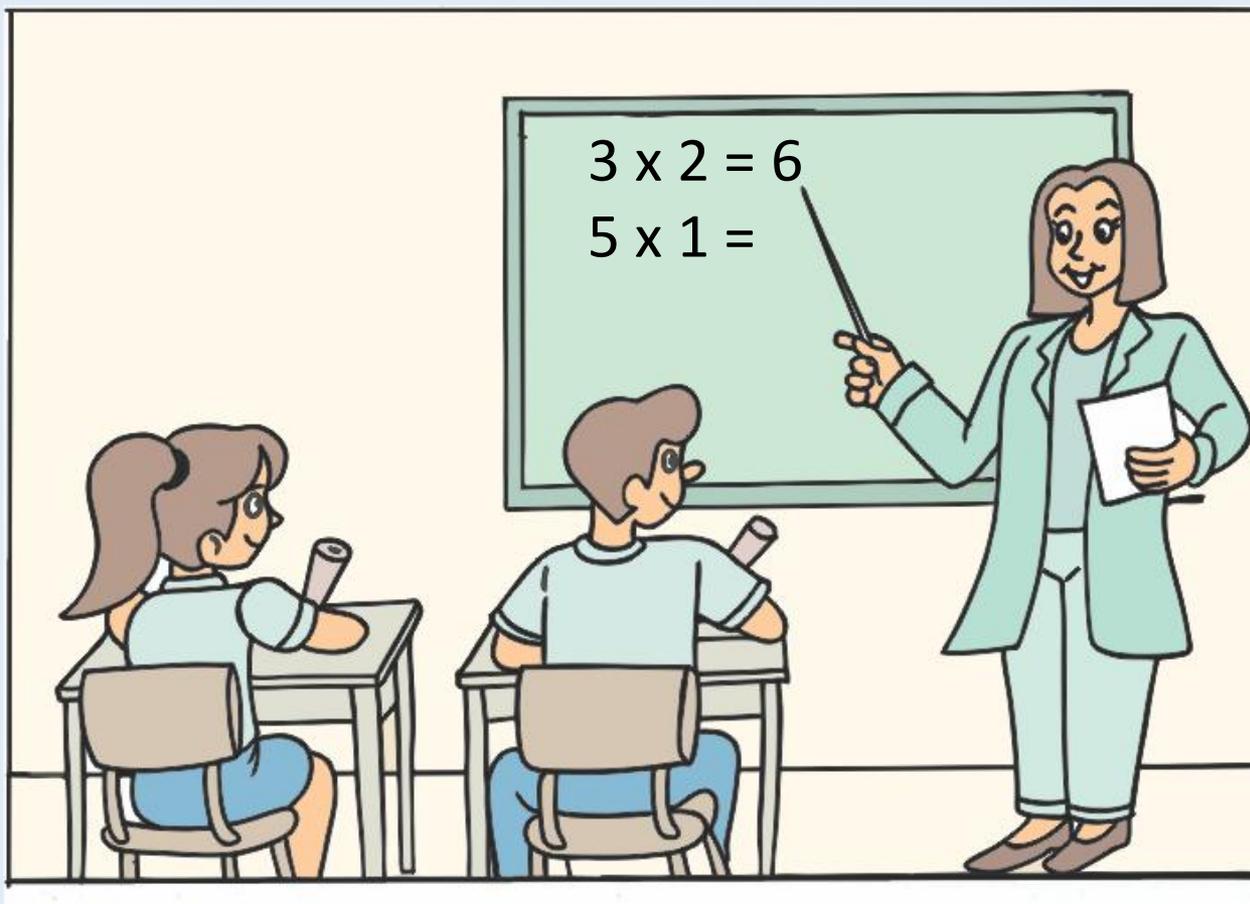


Observe a maneira de calcular a subtração com dezena.

Começar pela unidade, verificar qual é o algarismo , quando minuendo é menor que subtraendo efetuar o **pedido**. Depois realizar o cálculo conforme a imagem.

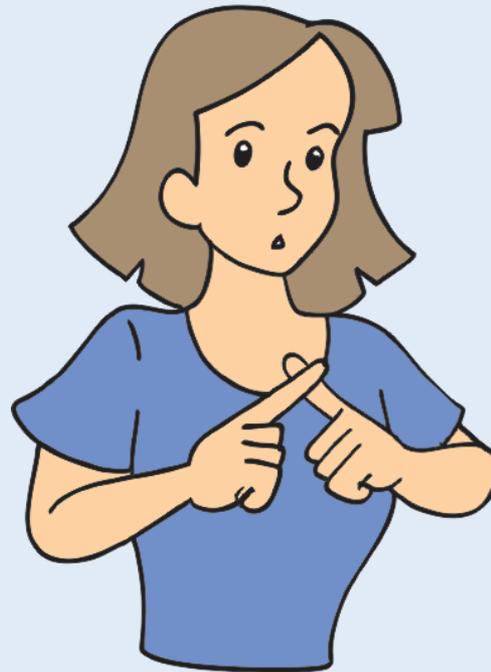


Ensinando os alunos surdos como fazer multiplicação

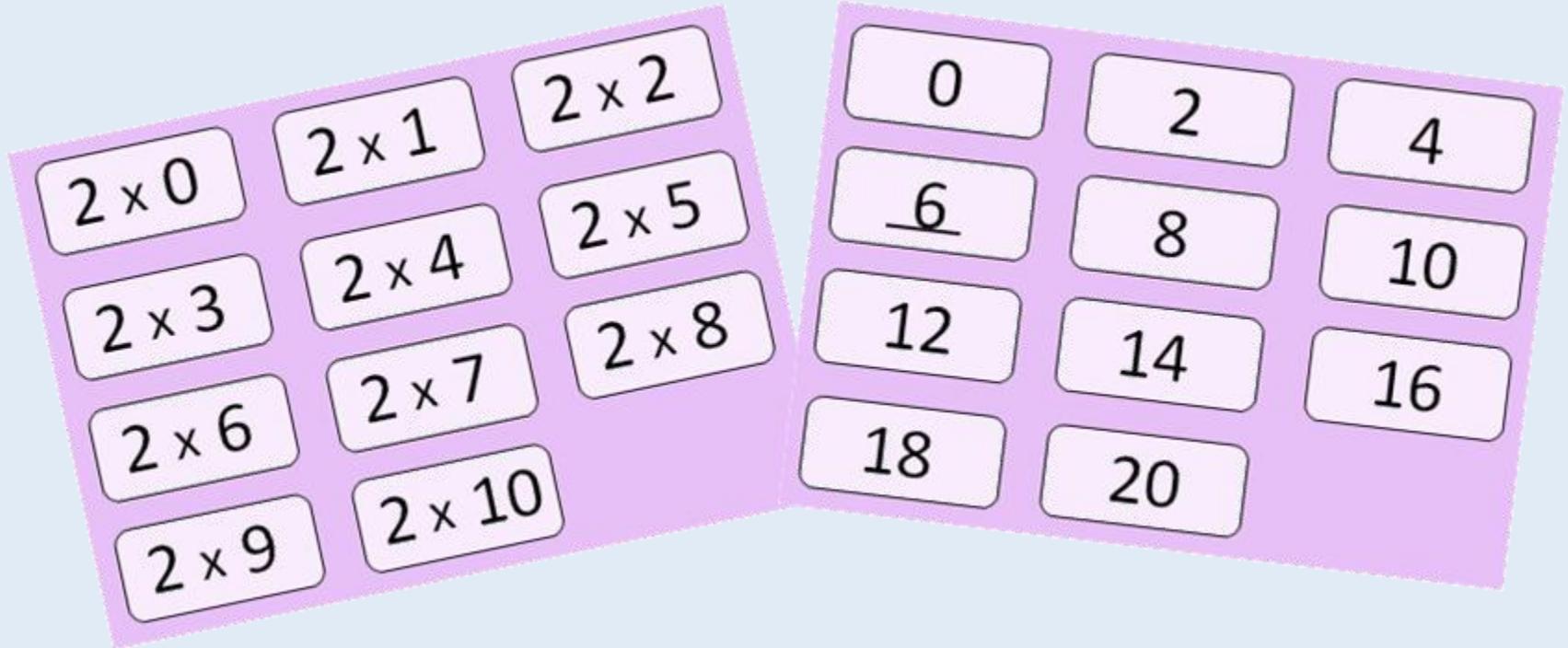


Multiplicação

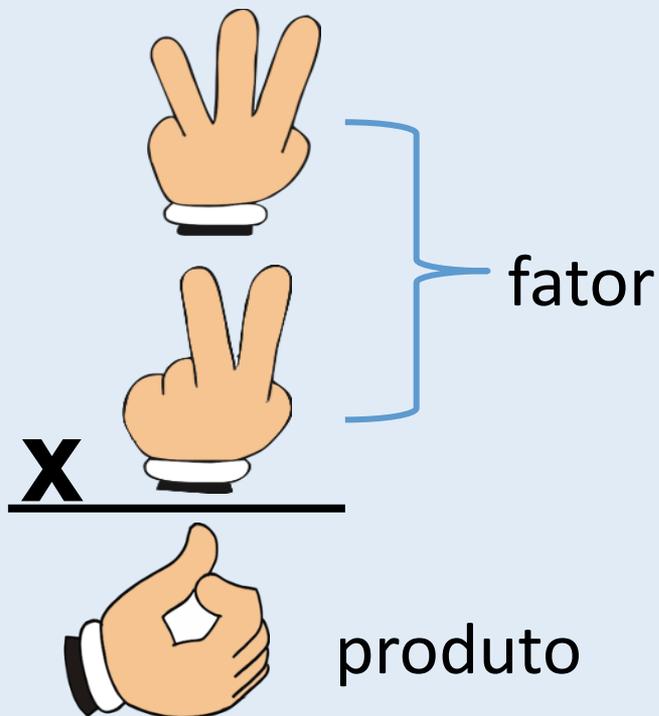
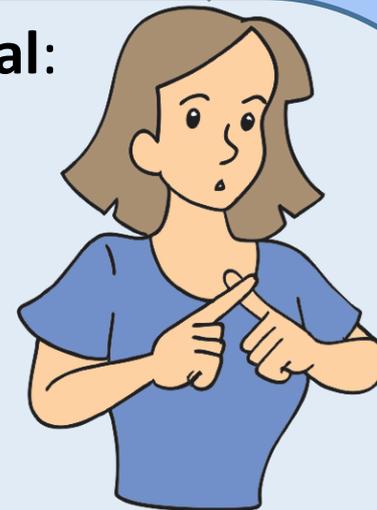
X



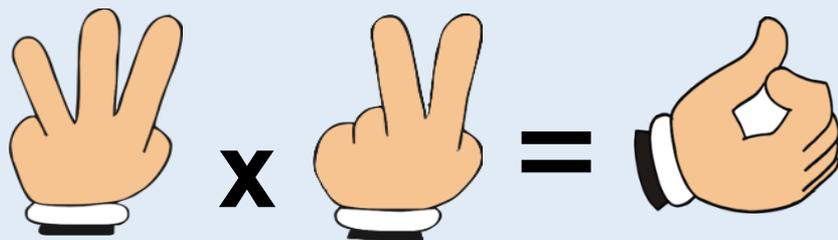
Dinâmica de Multiplicação



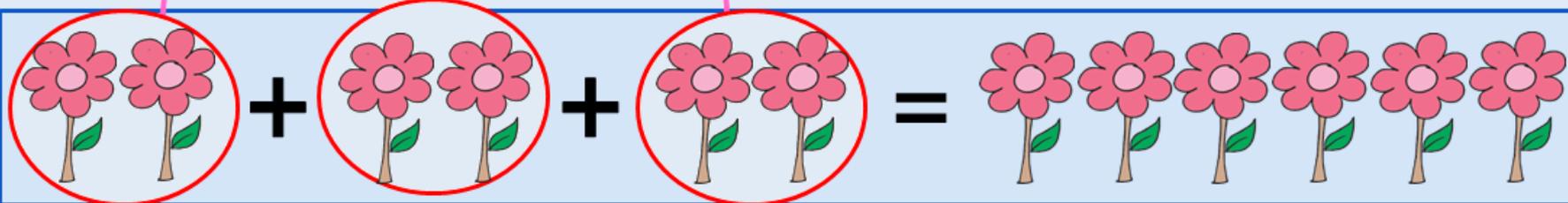
O resultado da **multiplicação** usa-se este sinal:



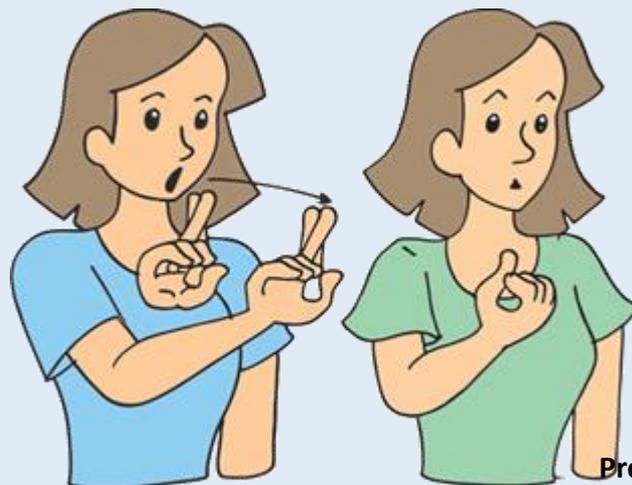
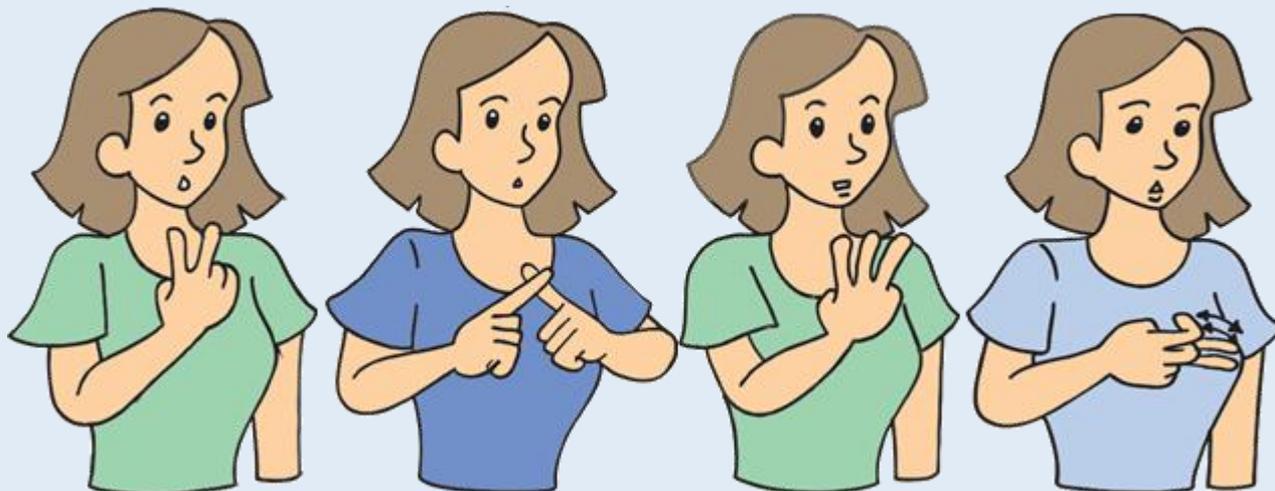
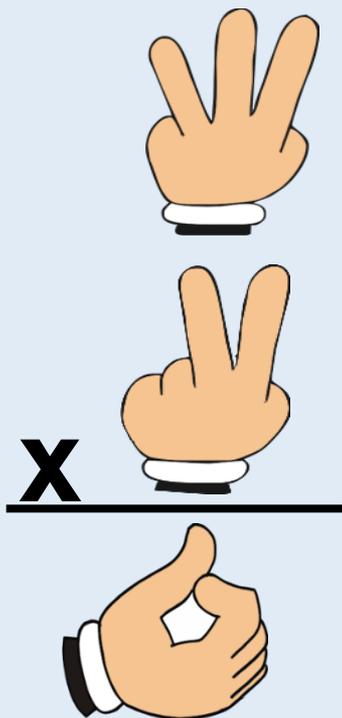
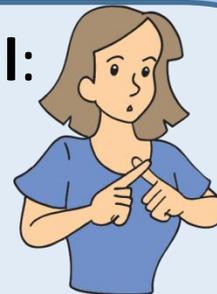
Observe a multiplicação com adição de parcelas iguais:



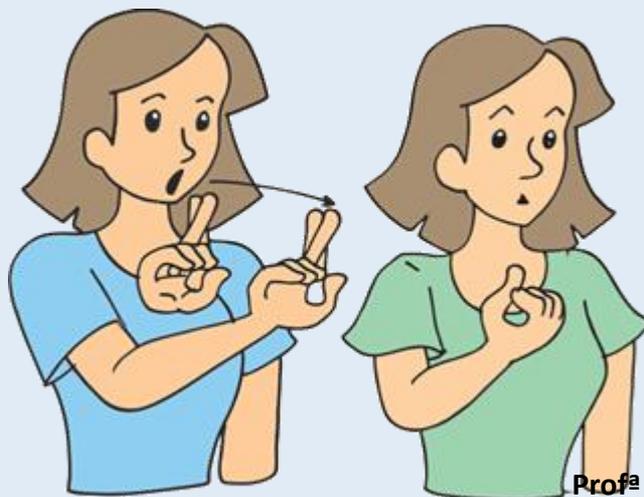
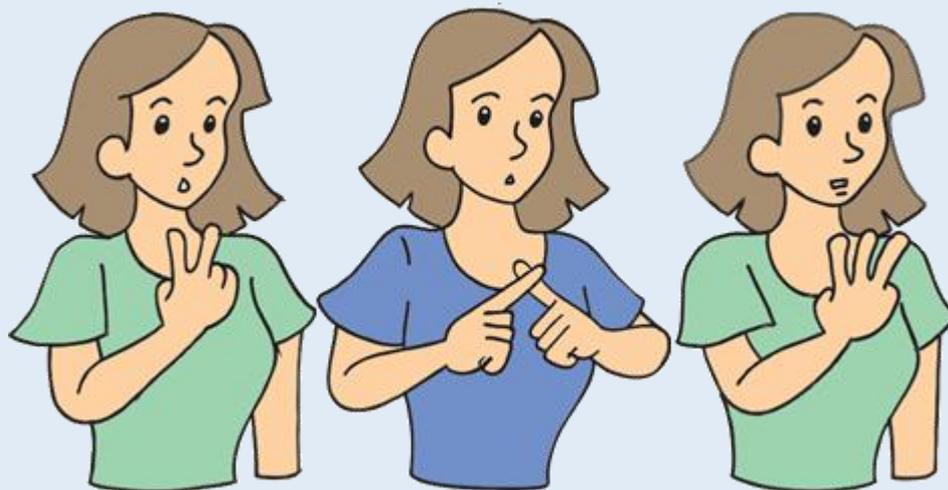
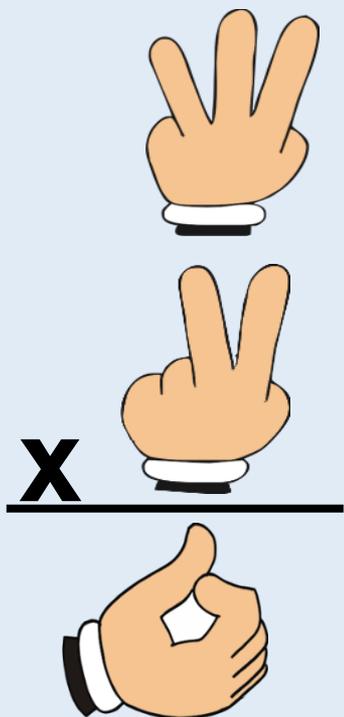
 vezes



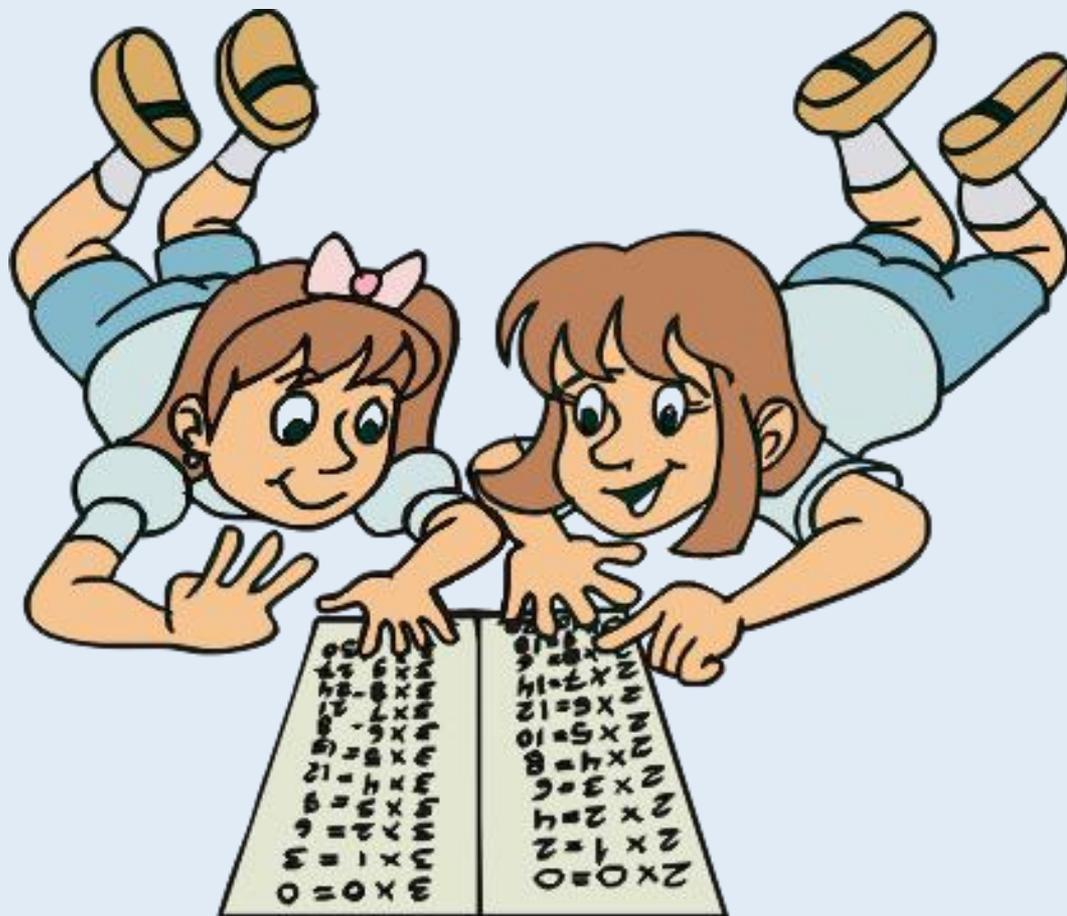
Na multiplicação dos fatores utiliza-se este **sinal**:



Em dinâmicas ou aulas expositivas não precisa da utilização do sinal “igual”.



Construir a tabuada



Tabuada

$$2 \times 0 = 0$$

$$2 \times 1 = 2$$

$$2 \times 2 = 4$$

$$2 \times 3 = 6$$

$$2 \times 4 = 8$$

$$2 \times 5 = 10$$

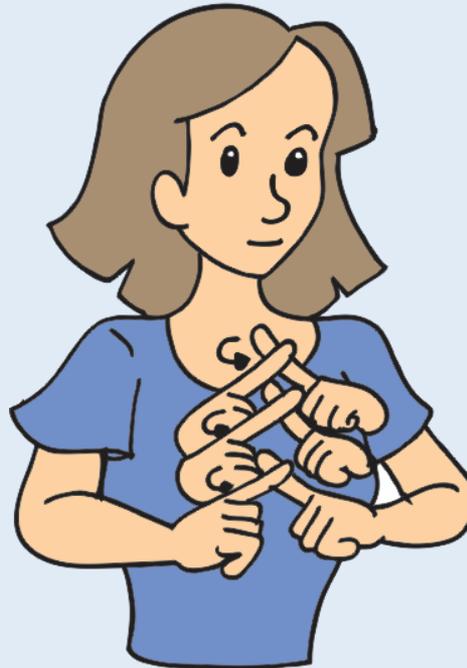
$$2 \times 6 = 12$$

$$2 \times 7 = 14$$

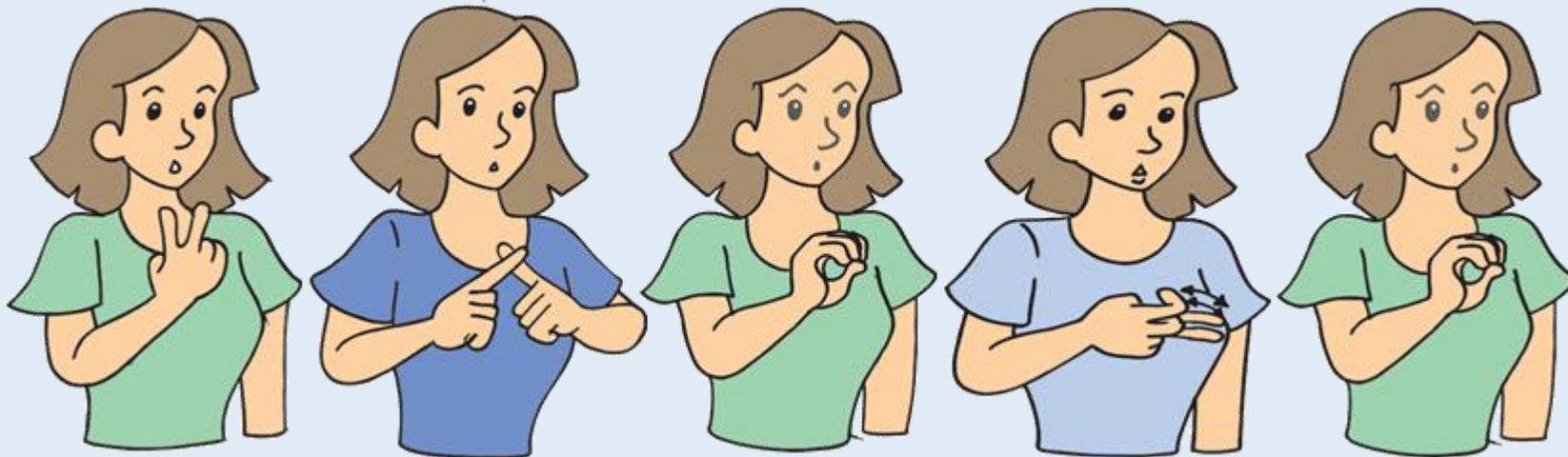
$$2 \times 8 = 16$$

$$2 \times 9 = 18$$

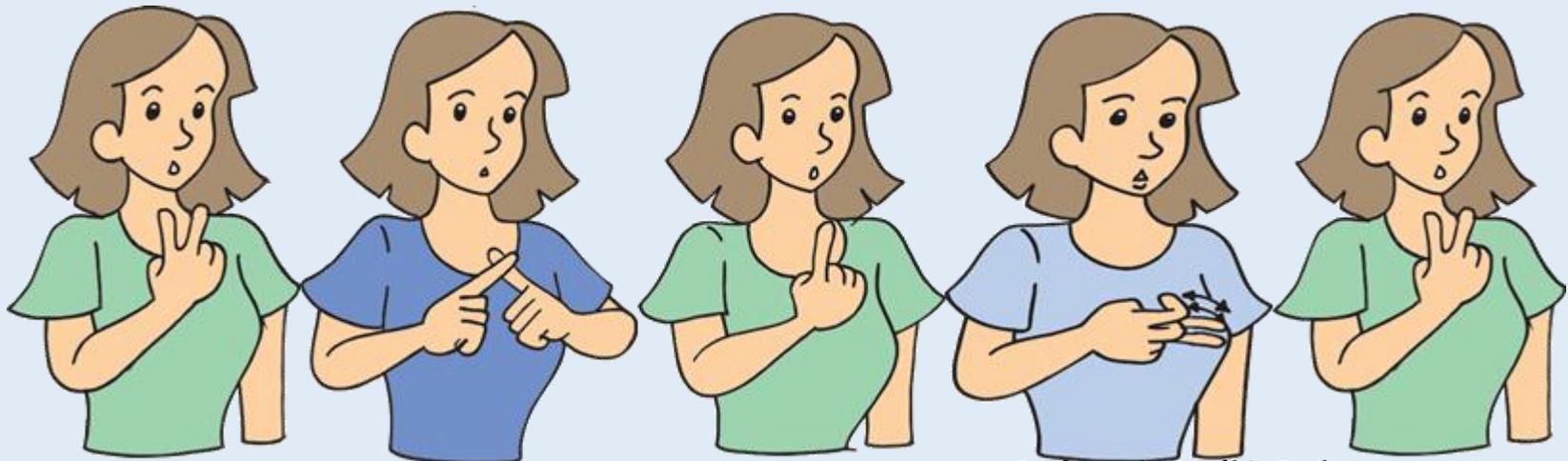
$$2 \times 10 = 20$$



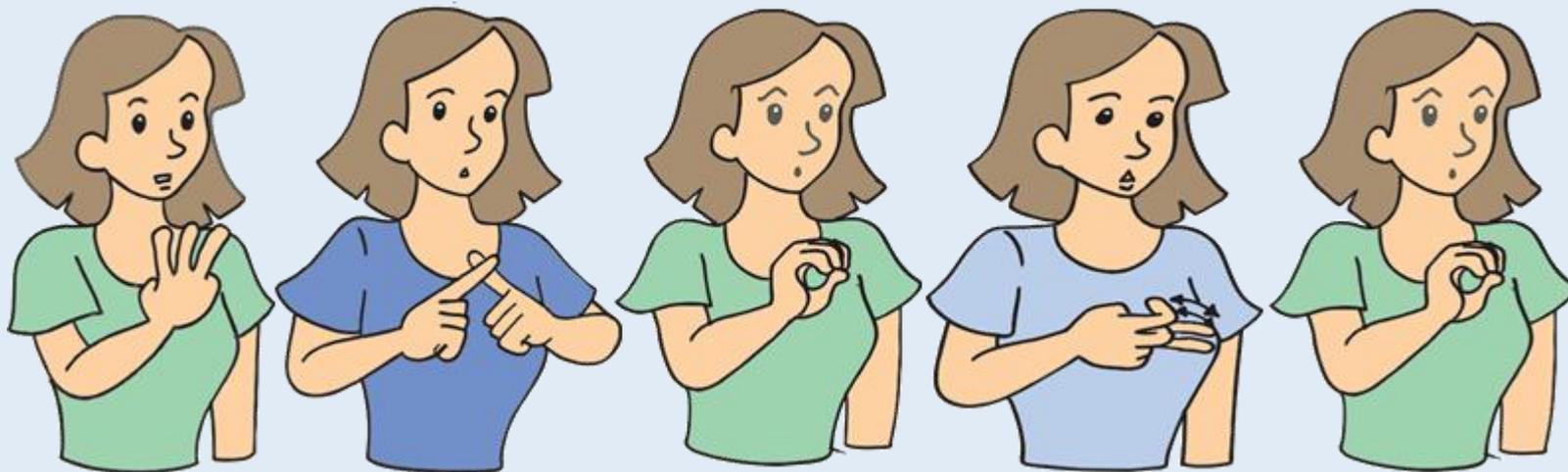
$$2 \times 0 = 0$$



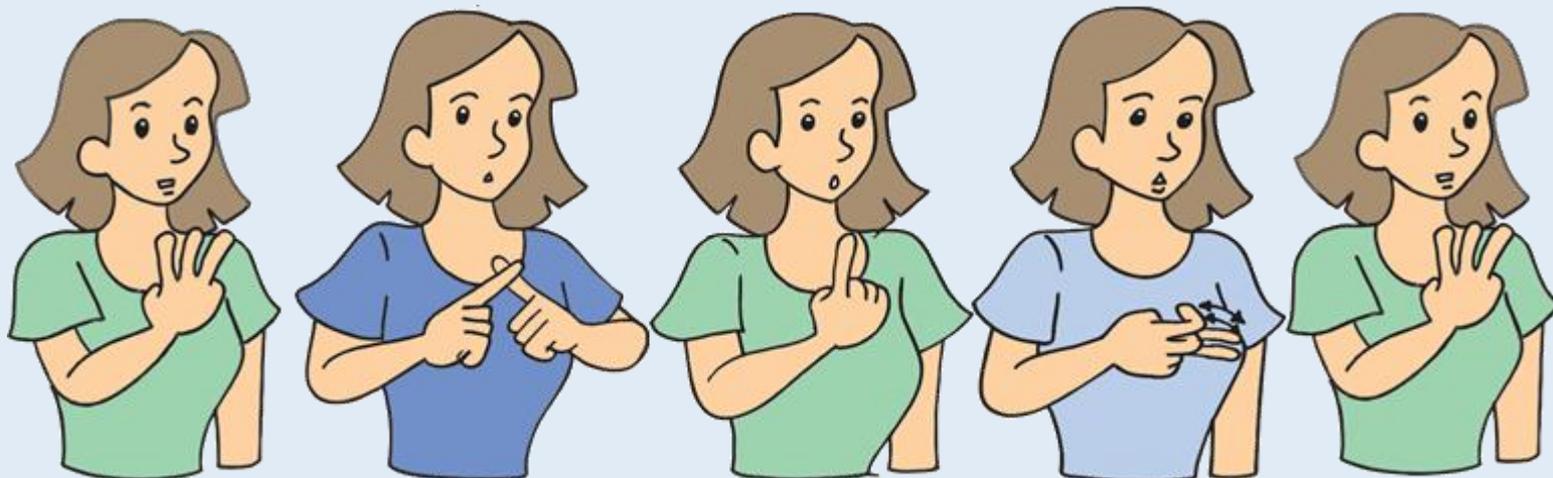
$$2 \times 1 = 2$$



$$3 \times 0 = 0$$

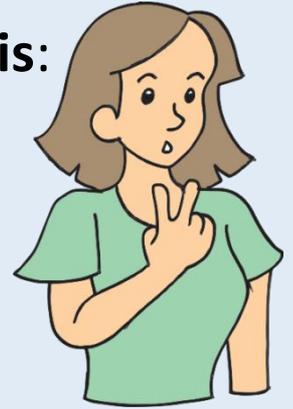


$$3 \times 1 = 3$$

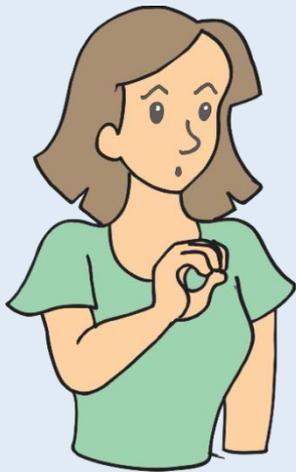


Na tabuada em Libras, partindo do termo principal efetuar a contagem para encontrar o resultado do produto.

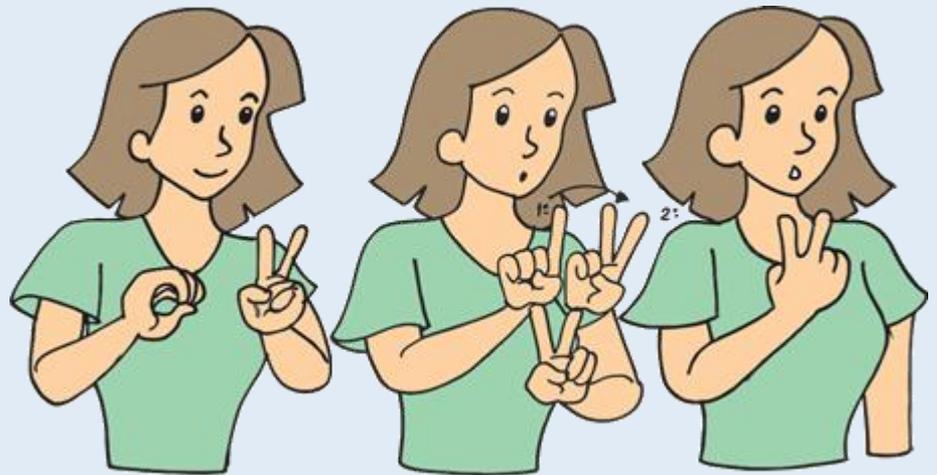
Agora observe os exemplos a seguir com **número dois**:



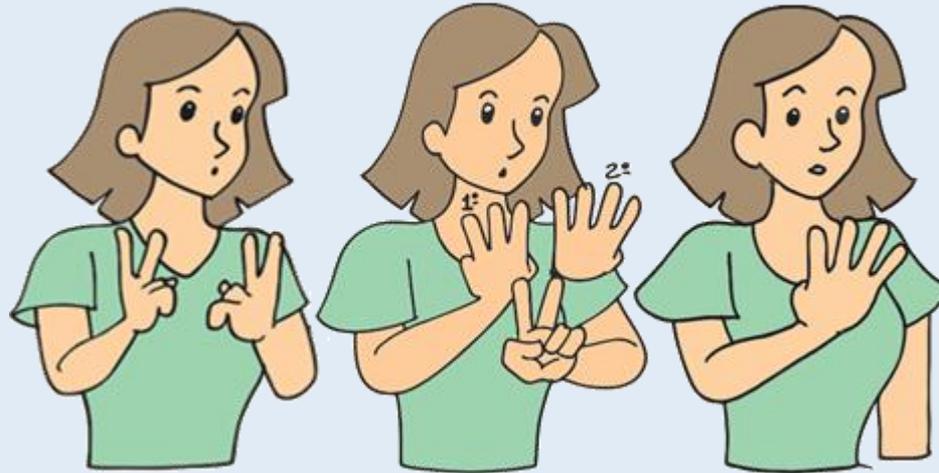
$$2 \times 0 = 0$$



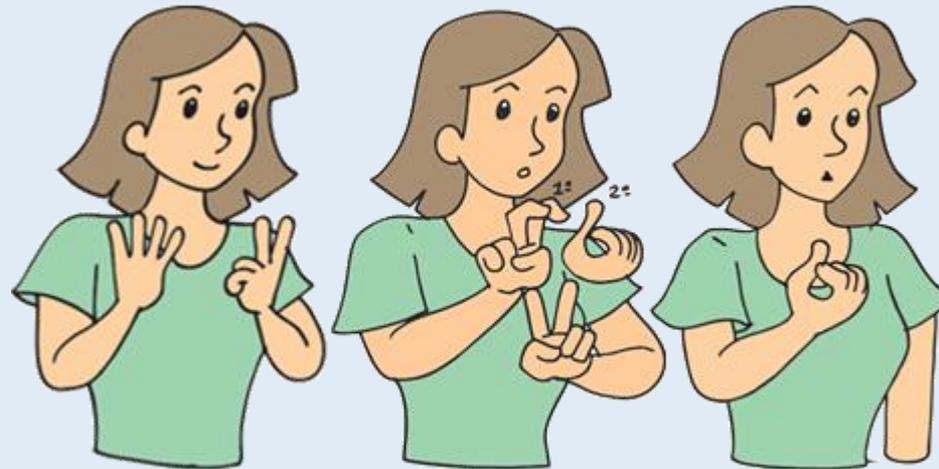
$$2 \times 1 = 2$$



$$2 \times 2 = 4$$

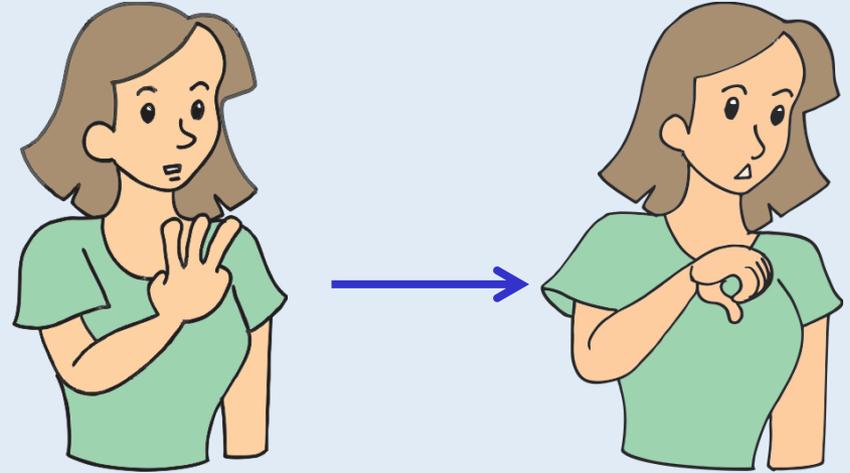


$$2 \times 3 = 6$$

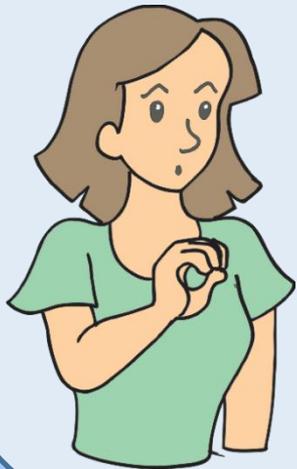


Na tabuada em Libras, partindo do termo principal efetuar a contagem para encontrar o resultado do produto.

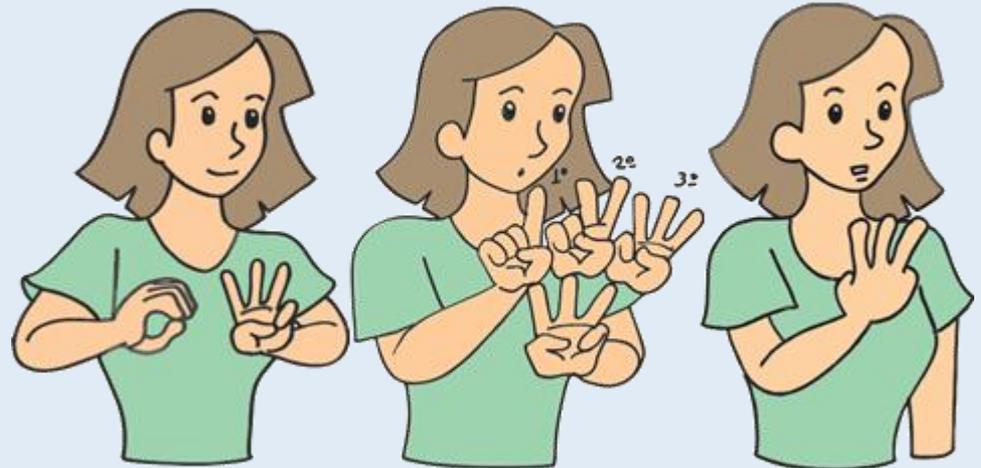
Agora observe os exemplos a seguir com número três e assim por diante.



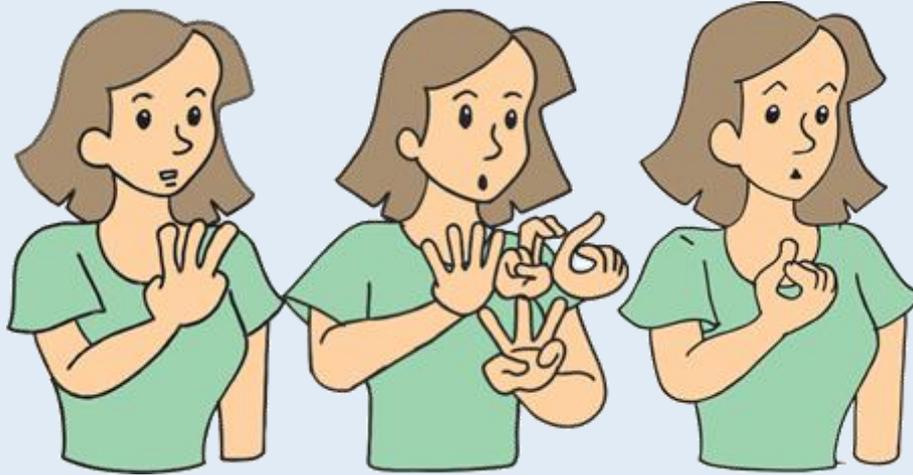
$$3 \times 0 = 0$$



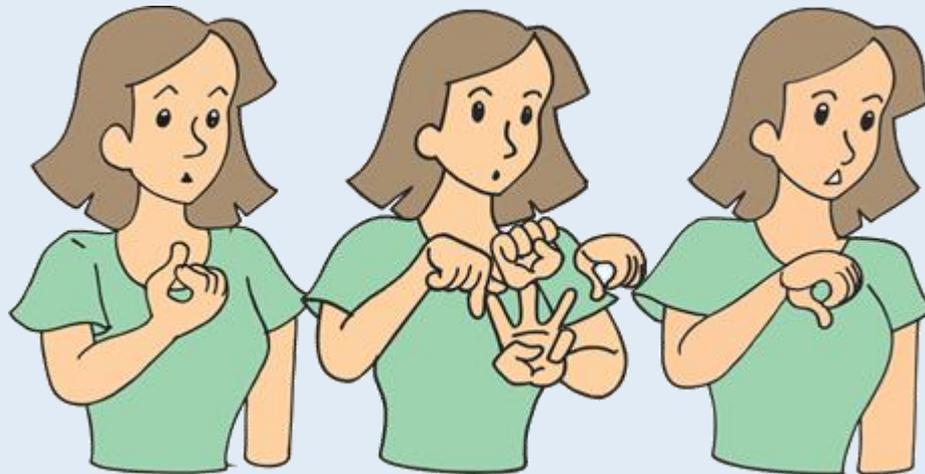
$$3 \times 1 = 3$$



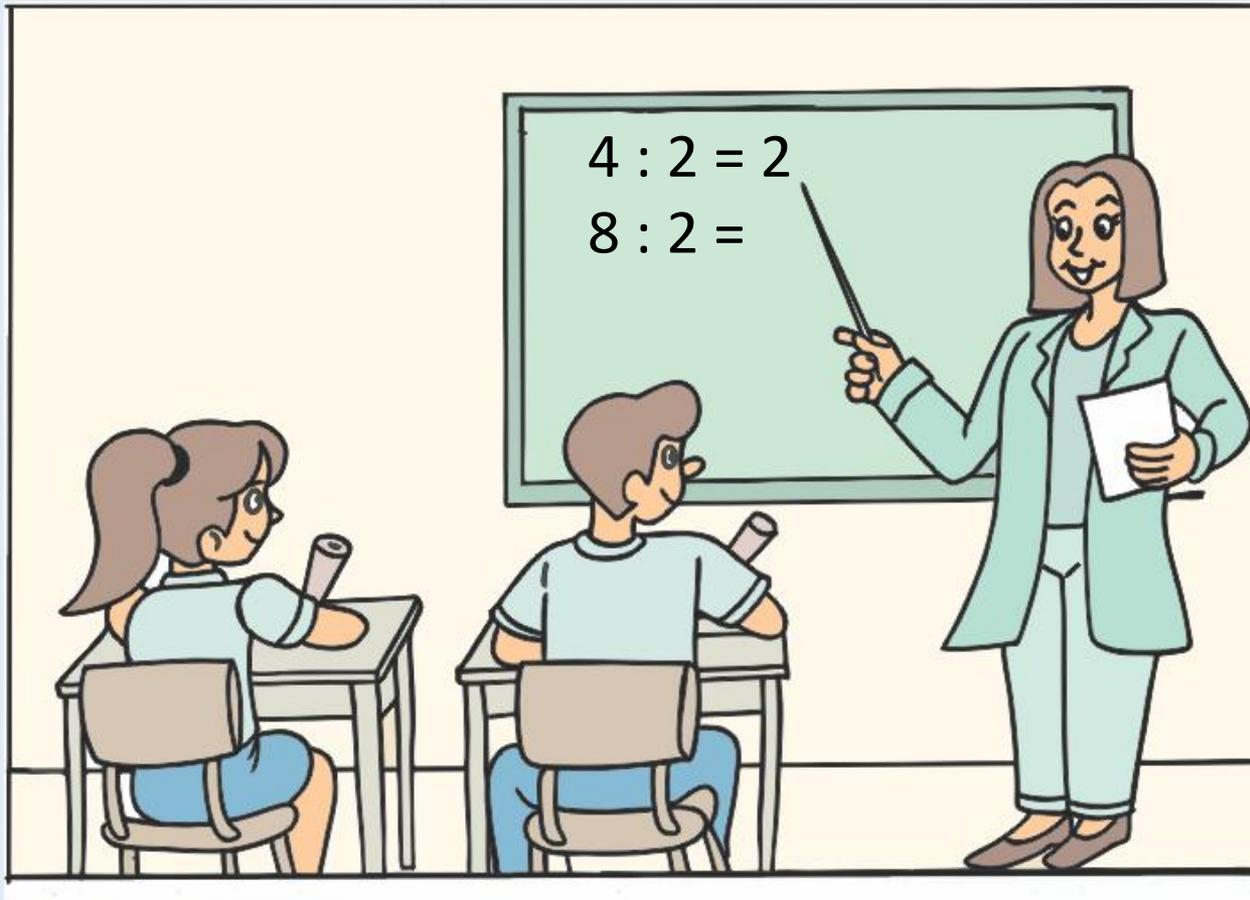
$$3 \times 2 = 6$$



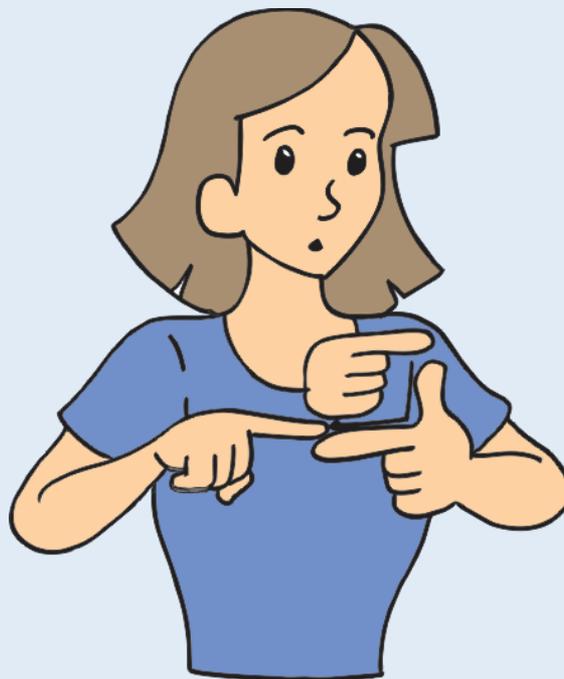
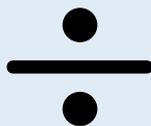
$$3 \times 3 = 9$$



Ensinando os alunos surdos como fazer divisão



Divisão

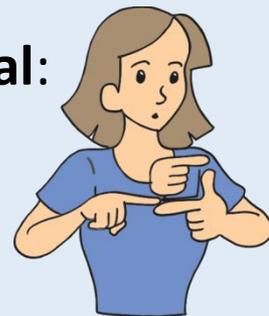


Dinâmica de Divisão

1	3	7
4	9	5
<u>6</u>	2	8

$2 : 2$	$4 : 2$	$6 : 2$
$8 : 2$	$10 : 2$	$12 : 2$
$14 : 2$	$16 : 2$	$18 : 2$

Na divisão utiliza-se **este sinal**:



$$2 \times 0 = 0$$

$$2 \times 1 = 2$$

$$2 \times 2 = 4$$

$$2 \times 3 = 6$$

$$2 \times 4 = 8$$

$$2 \times 5 = 10$$

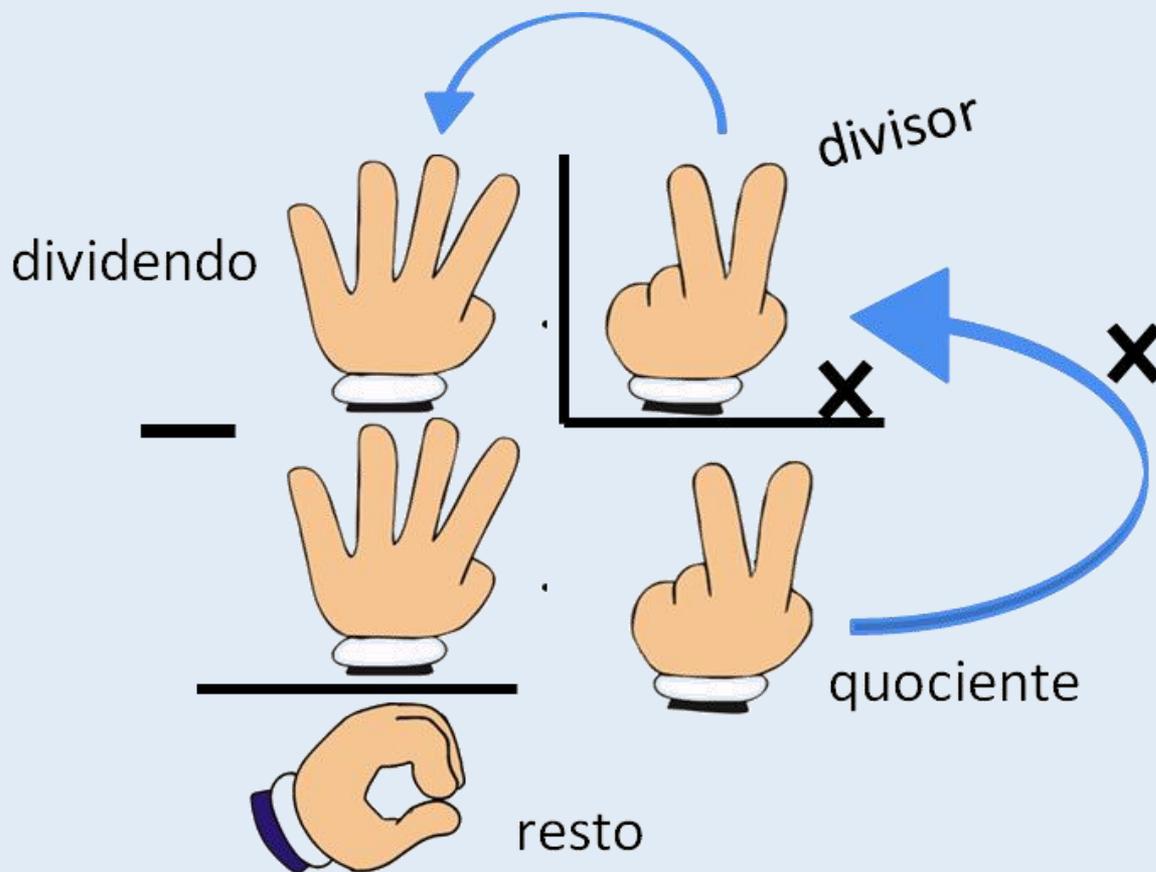
$$2 \times 6 = 12$$

$$2 \times 7 = 14$$

$$2 \times 8 = 16$$

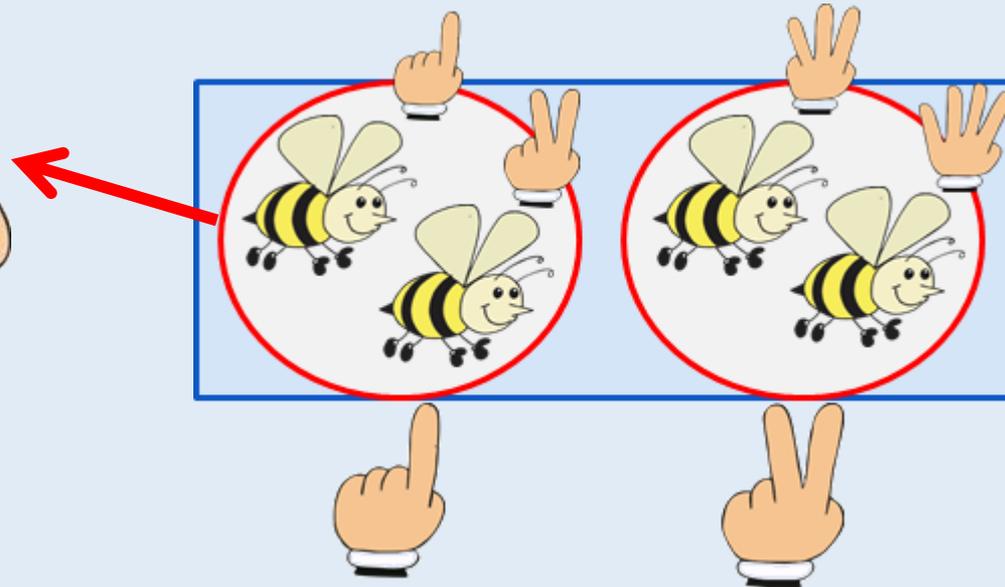
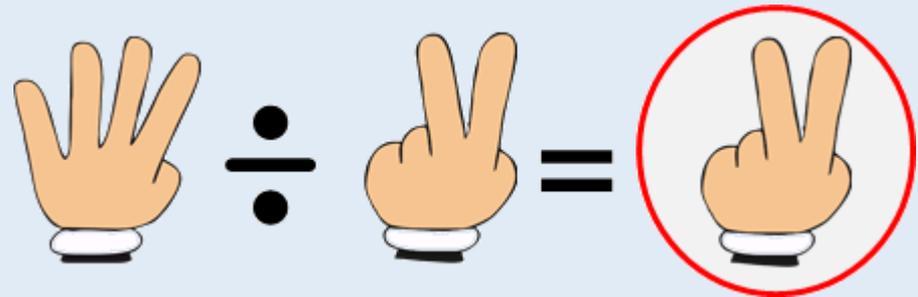
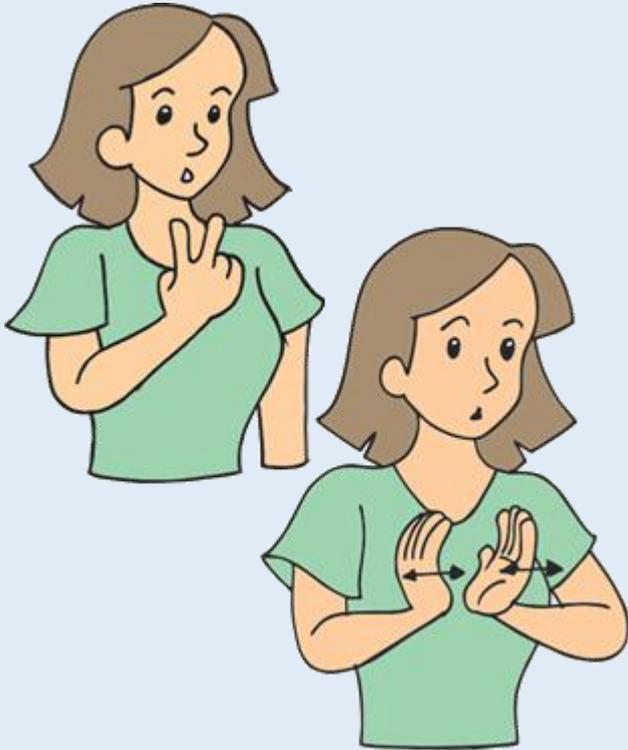
$$2 \times 9 = 18$$

$$2 \times 10 = 20$$



Em Libras na divisão observar o dividendo para efetuar a distribuição em grupos conforme divisor.

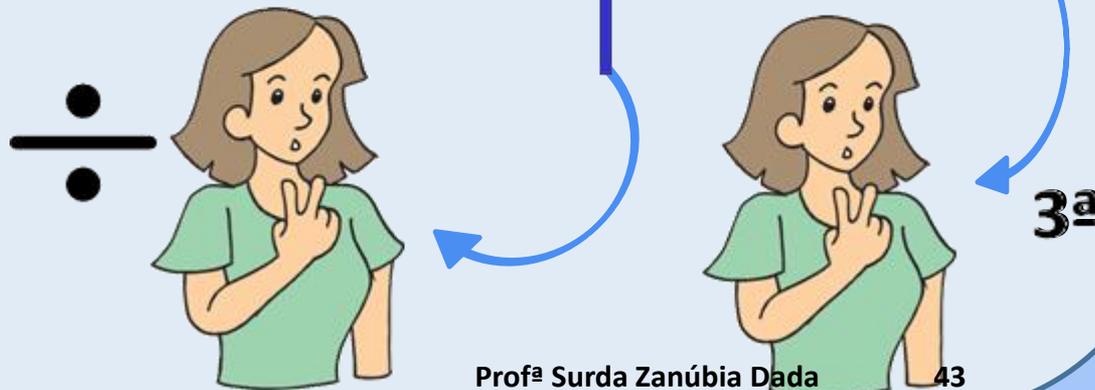
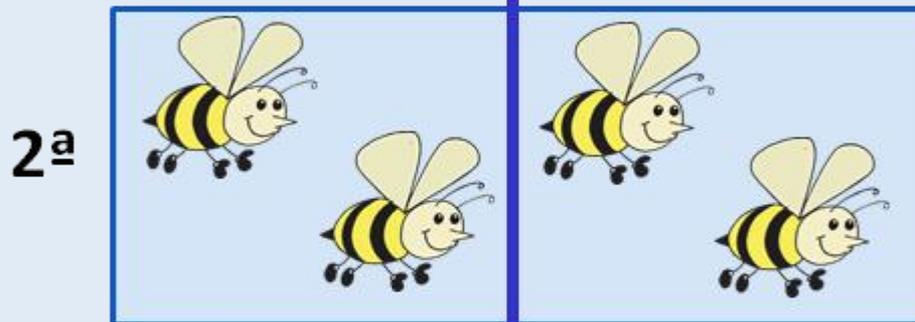
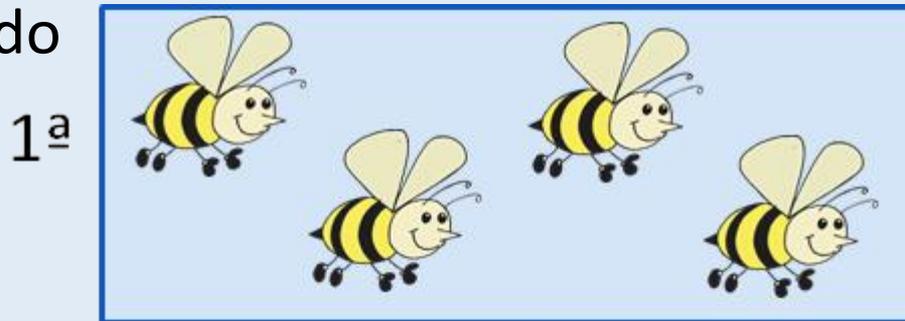
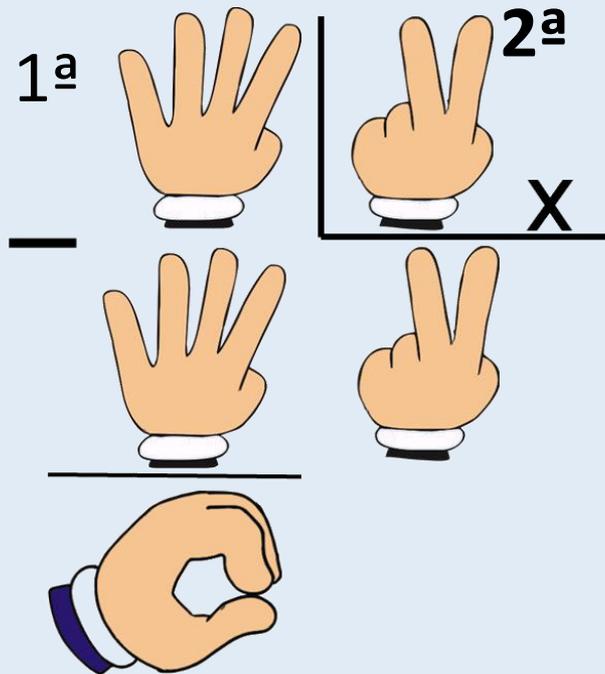
Observe os exemplos abaixo:



1º - Contar quantas abelhas tem

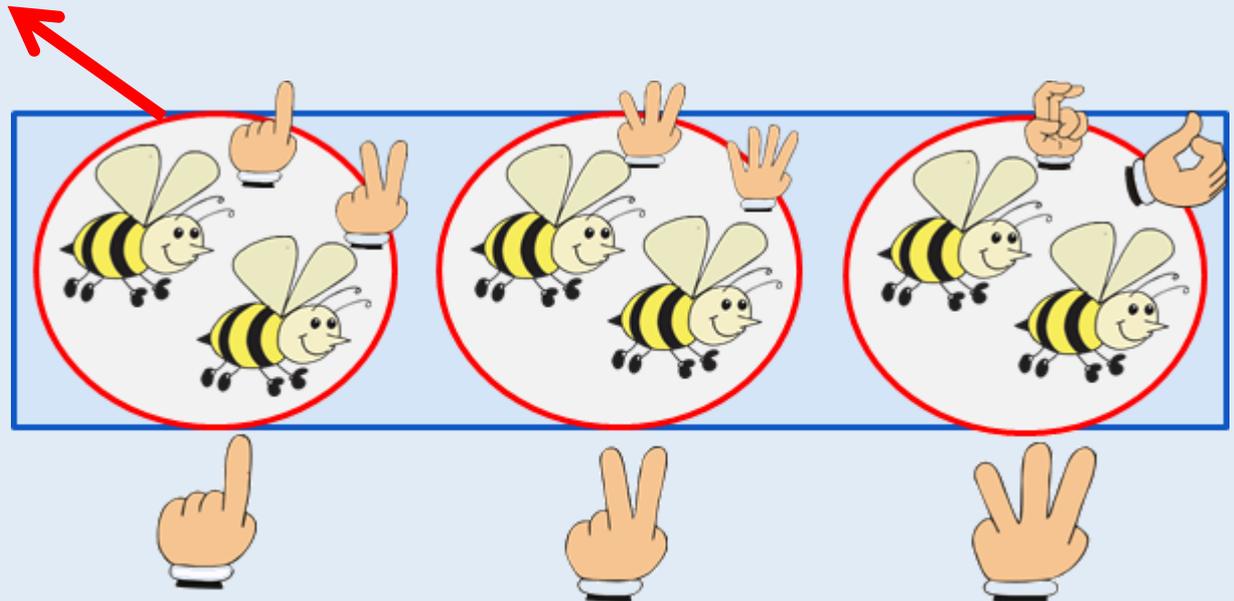
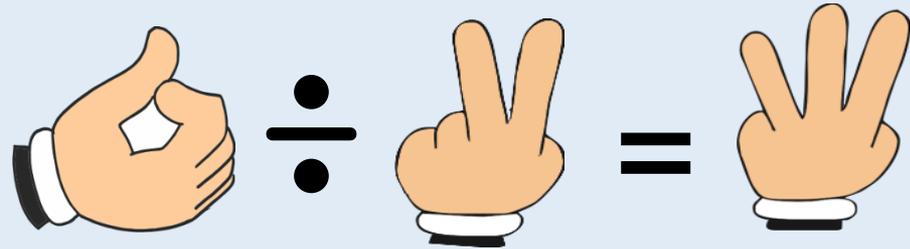
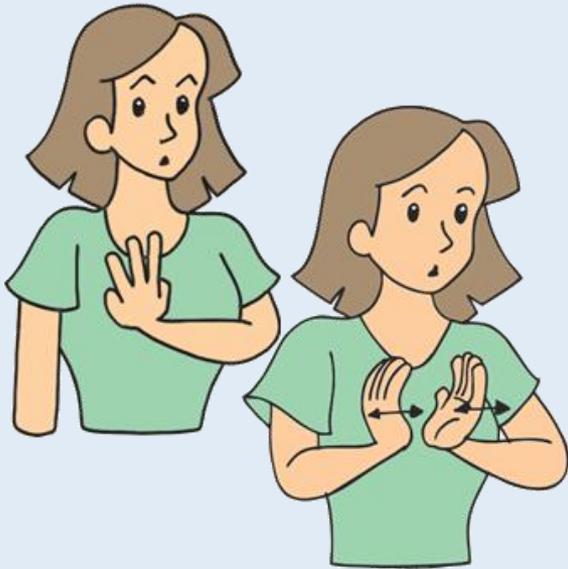
2º - Dividir, separar em dois grupos

3º - Verificar o resultado

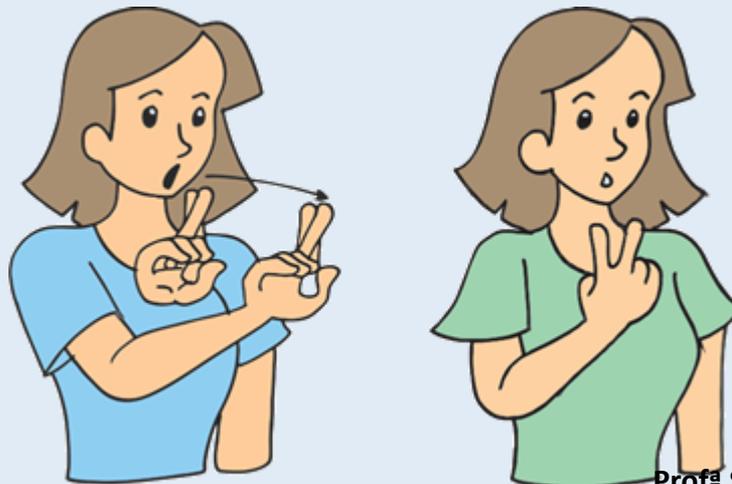
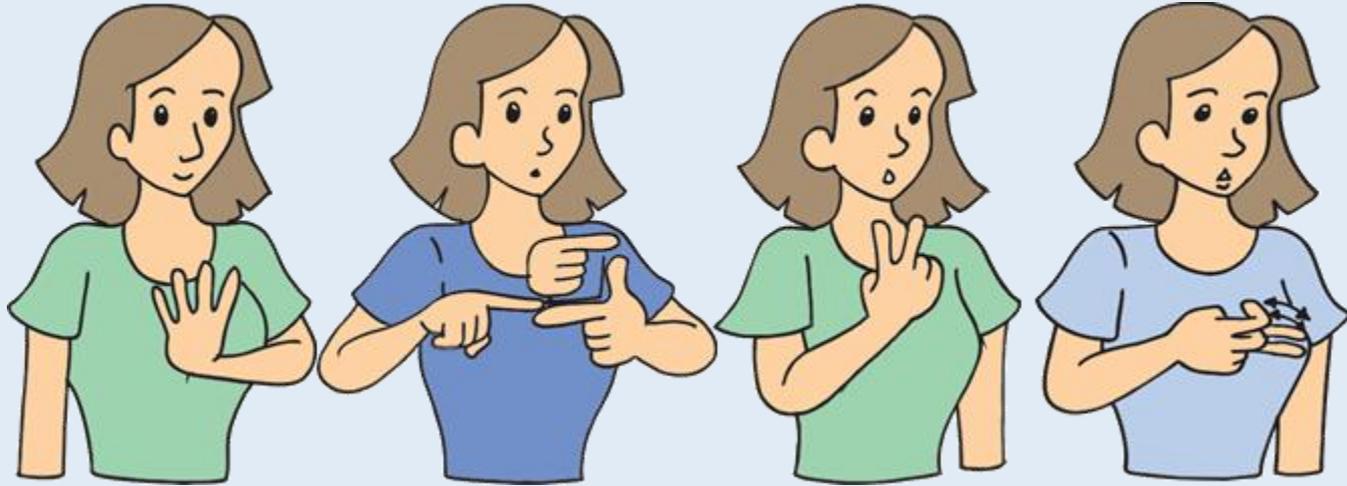


Em Libras na divisão observar o dividendo para efetuar a distribuição em grupos conforme divisor.

Observe os exemplos abaixo:



$$5 \div 3 = 3$$



Efetue

$$2 \times 0 = 0$$

$$2 \times 1 = 2$$

$$2 \times 2 = 4$$

$$2 \times 3 = 6$$

$$2 \times 4 = 8$$

$$2 \times 5 = 10$$

$$2 \times 6 = 12$$

$$2 \times 7 = 14$$

$$2 \times 8 = 16$$

$$2 \times 9 = 18$$

$$2 \times 10 = 20$$

↑ Resposta:

Outra estratégia é a utilização da Tabuada
Exemplo:

0 4 é (dividendo)

representa o produto da multiplicação

0 2 (divisor) representa o principal termo da multiplicação.

Portanto a **resposta** encontrada é o segundo termo da multiplicação.

Efetue

$2 \times 0 = 0$

$2 \times 1 = 2$

$2 \times 2 = 4$

$2 \times 3 = 6$

$2 \times 4 = 8$

$2 \times 5 = 10$

$2 \times 6 = 12$

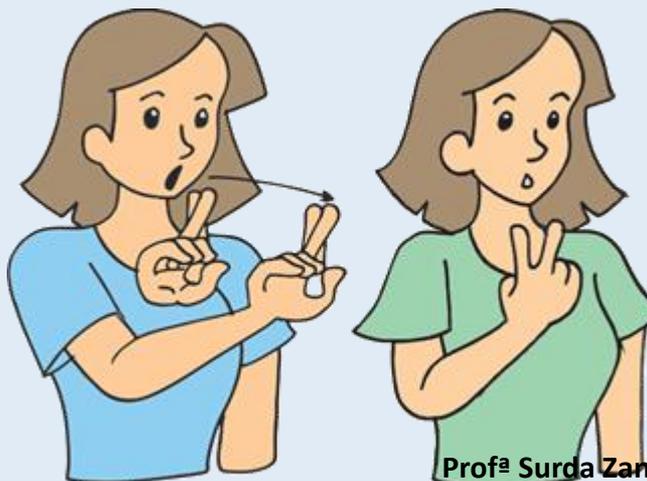
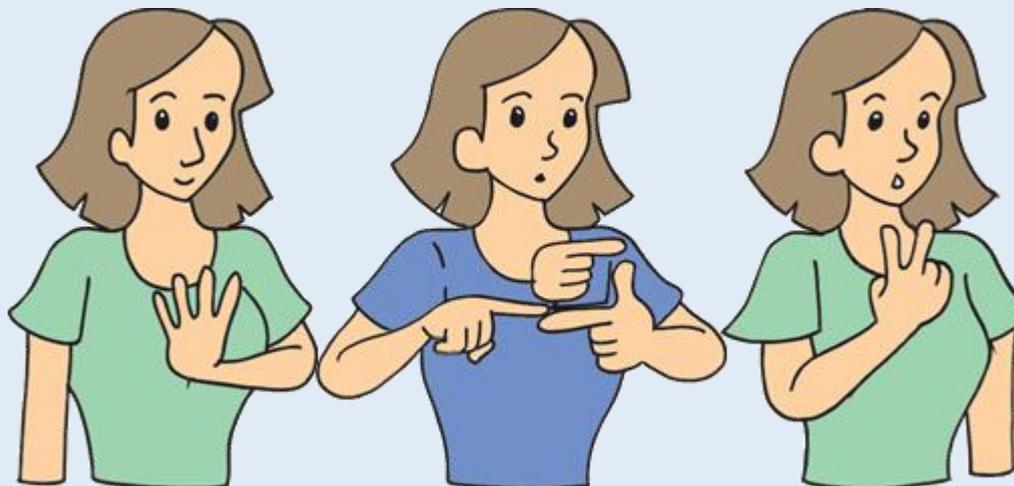
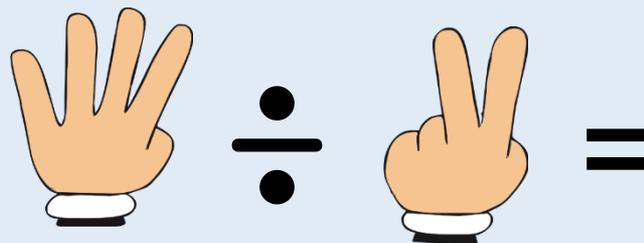
$2 \times 7 = 14$

$2 \times 8 = 16$

$2 \times 9 = 18$

$2 \times 10 = 20$

Resposta:





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- * Matemática em LIBRAS – 2009
- * DIDÁTICA DE MATEMÁTICA EM LIBRAS – 2012
- * SINAIS DE MATEMÁTICA EM LIBRAS – Prof^a surda Zanúbia Dada – 2013
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