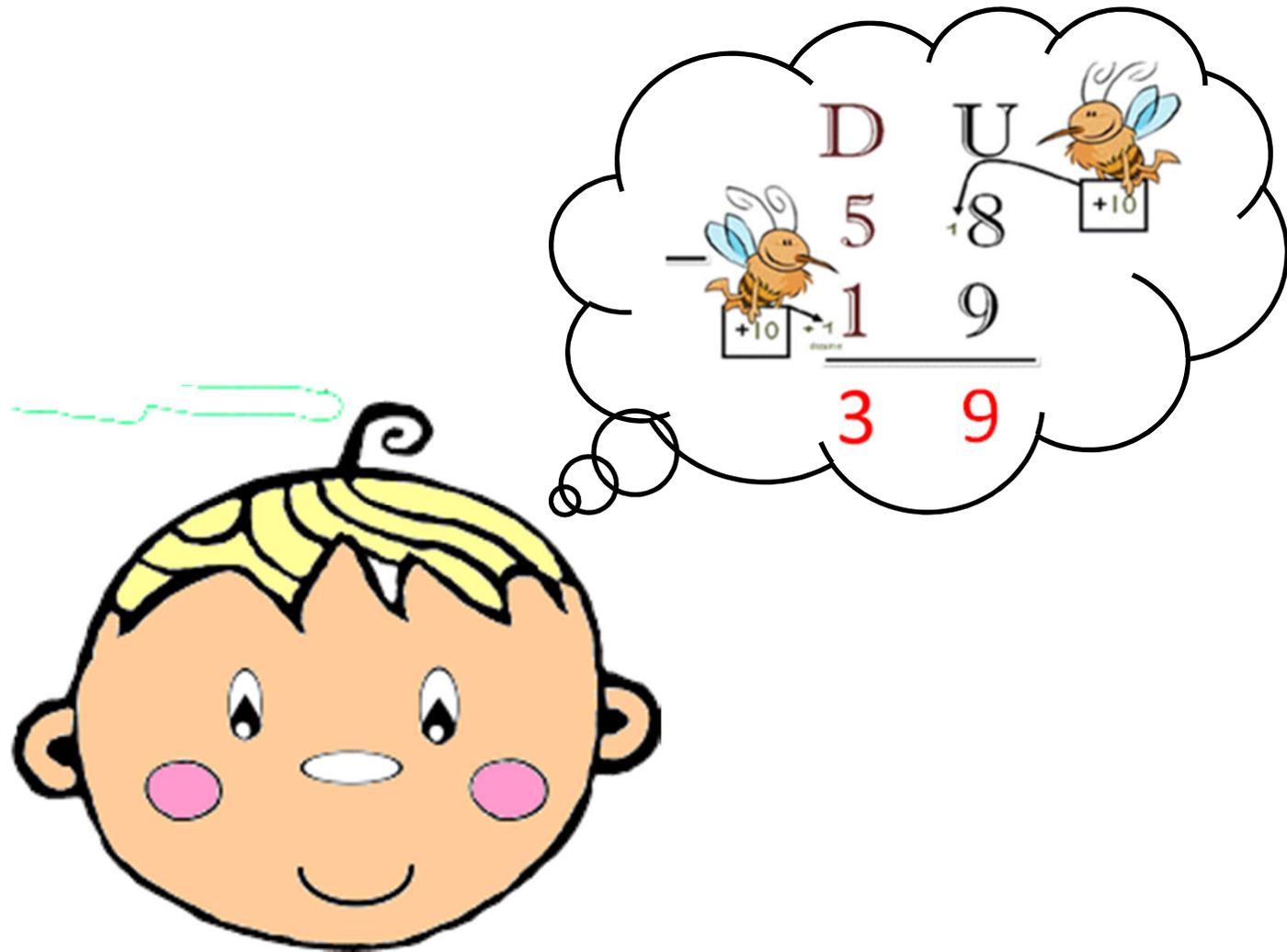
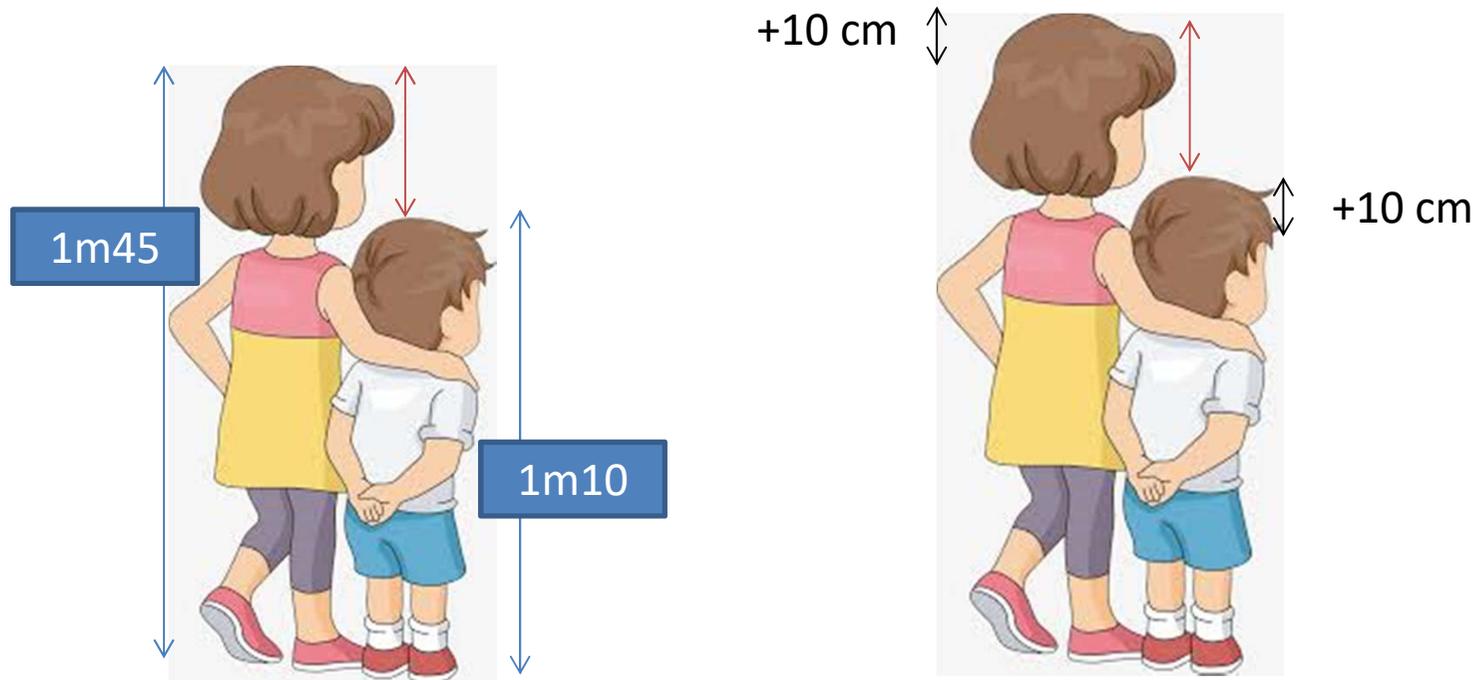


La retenue dans la soustraction comment l'expliquer aux élèves?



Anne mesure 1m 45. La taille de son petit frère est de 1m10. Ils grandissent tous les deux de 10 cm. Leur différence de taille a-t-elle changé? Pourquoi?



Cela fait appel à une propriété qu'on appelle la règle des écarts

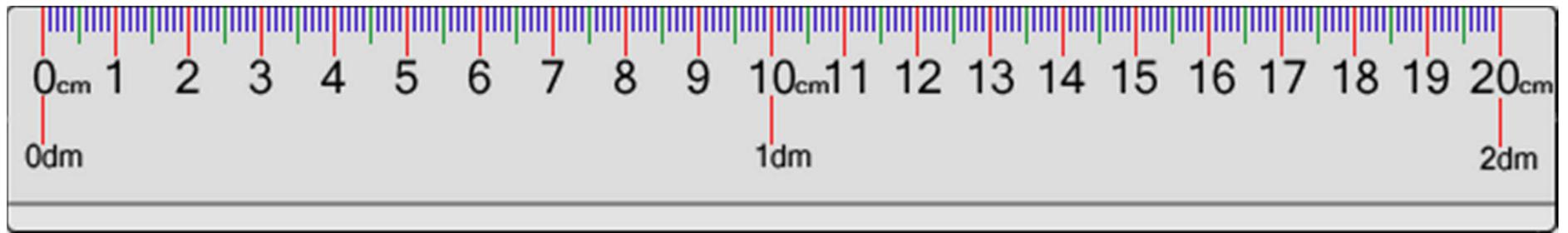
Voici une mise en situation pour que les élèves découvrent cette règle et la comprennent.



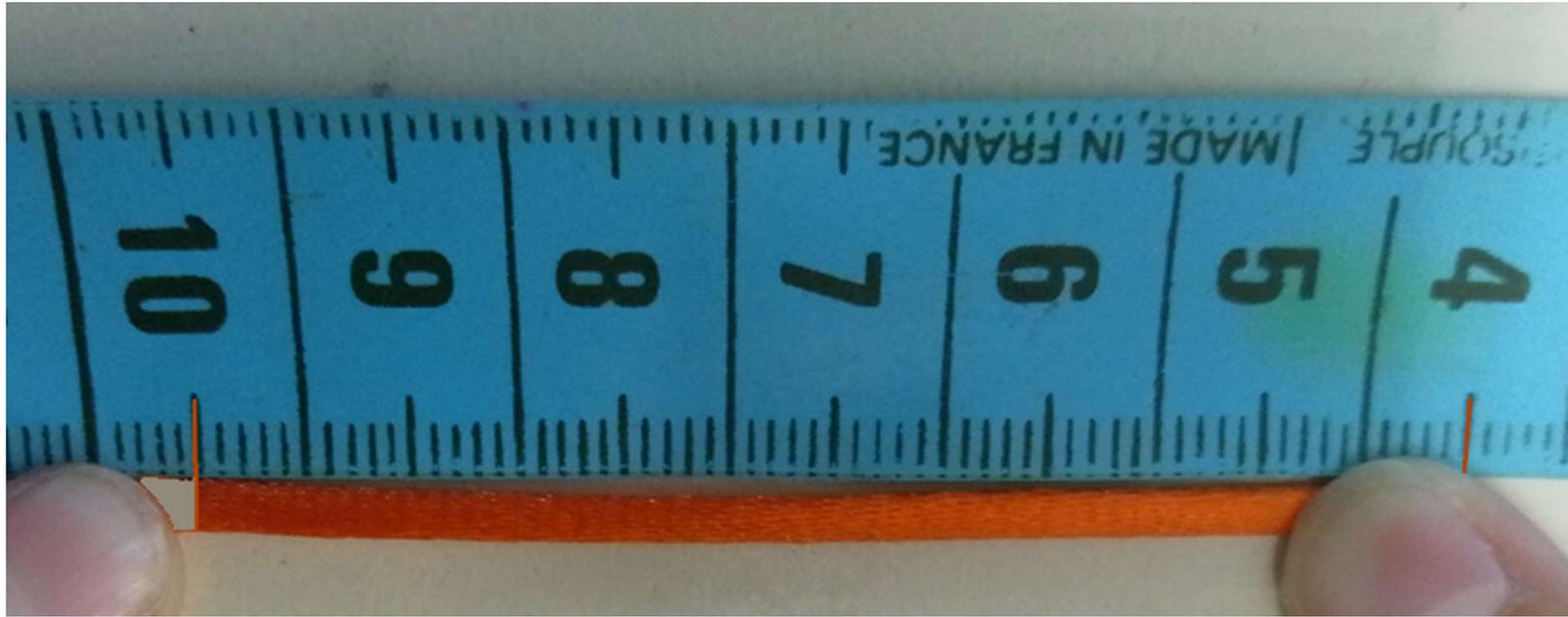
Ils ont devant eux leur règle ou une bande métrique graduée jusqu'à 30 cm et une ficelle.

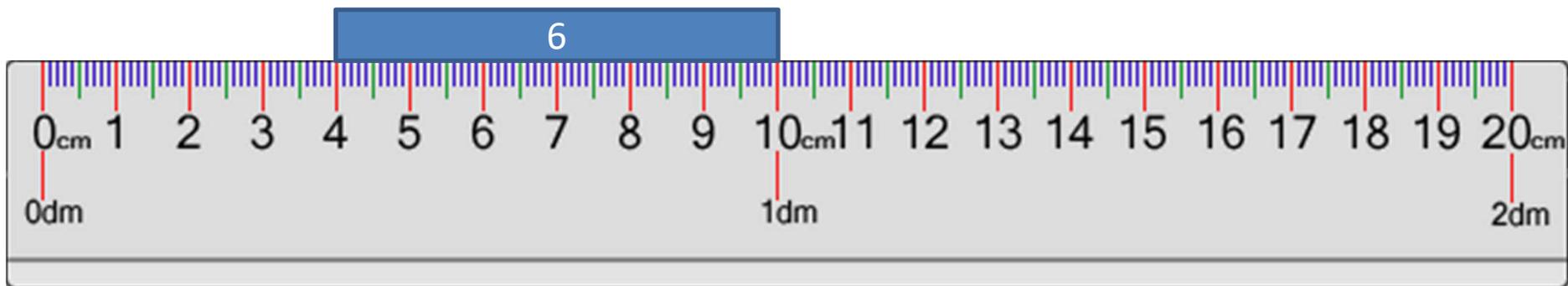


Coupez la ficelle pour montrer l'écart
entre 10 et 4



$$10 - 4$$



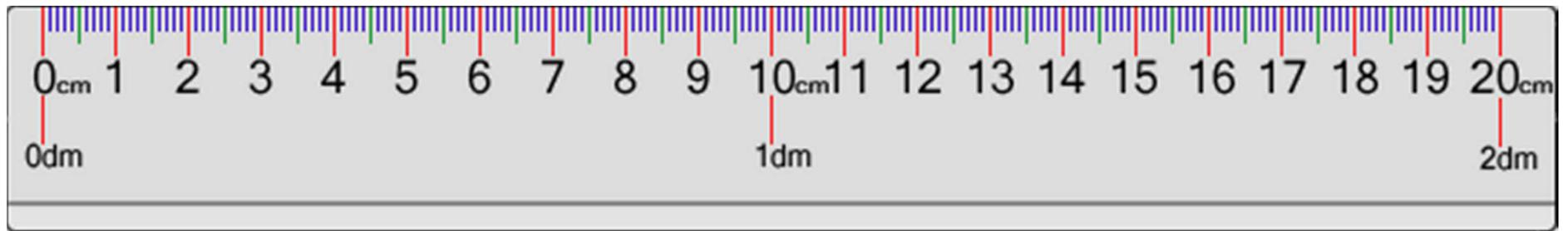


$$10 - 4$$

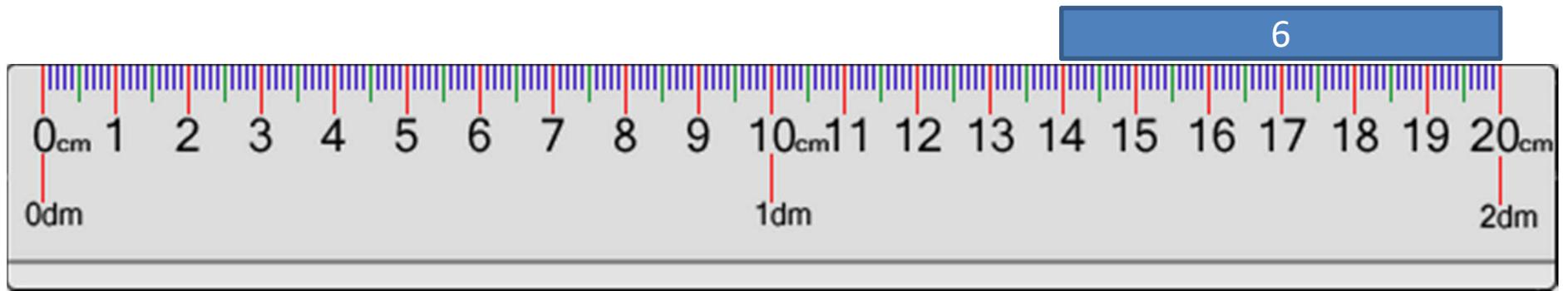
Reprenez la ficelle et placez –la entre
deux nouveaux nombres: 20 et 14 que
constatez-vous?



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$$20 - 14$$



$$20 - 14$$

Même chose entre 30 et 24



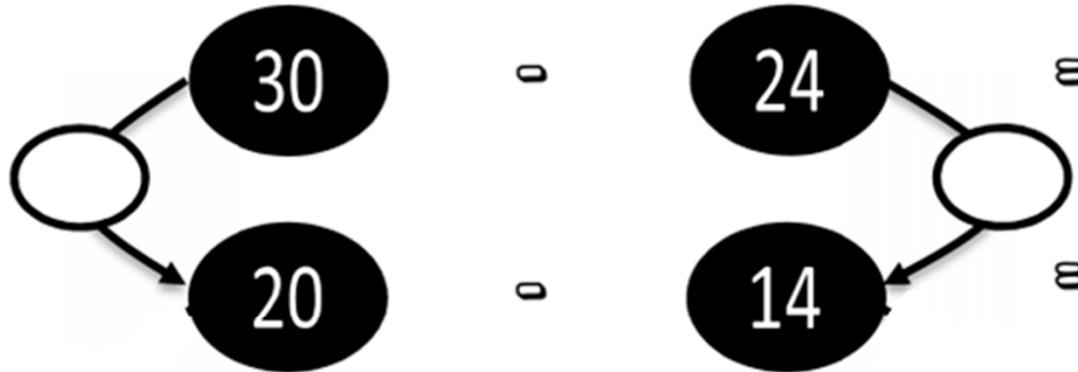
Auteur: Ombeleen. Ce document est protégé par des droits d'auteur. Sa publication est uniquement autorisée sur mon blog: ombeleen.eklablog.com

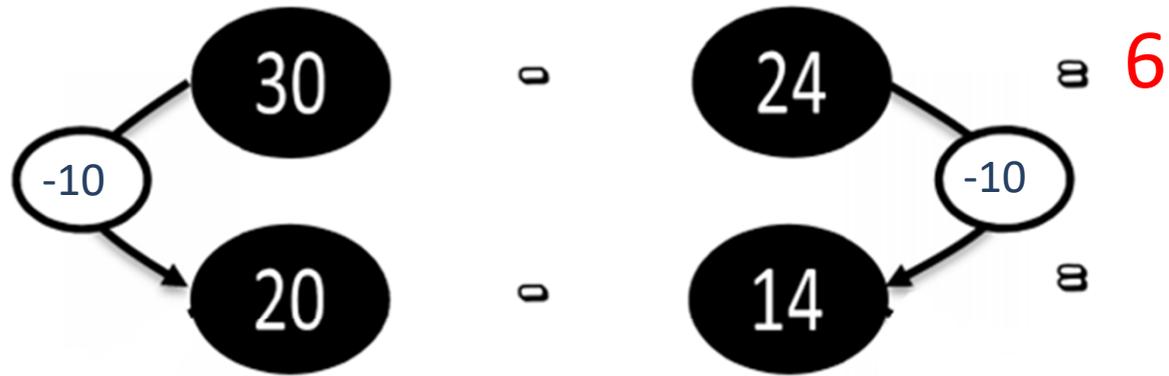
30 - 24

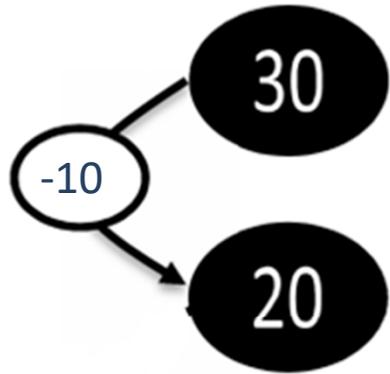
Pourquoi cela donne-t-il toujours la même différence, le même écart?

Observons!

Pour passer de 30 à 20 et de 24 à 14
qu'ai-je fait?

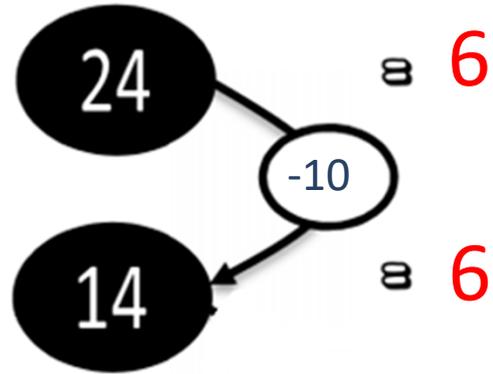


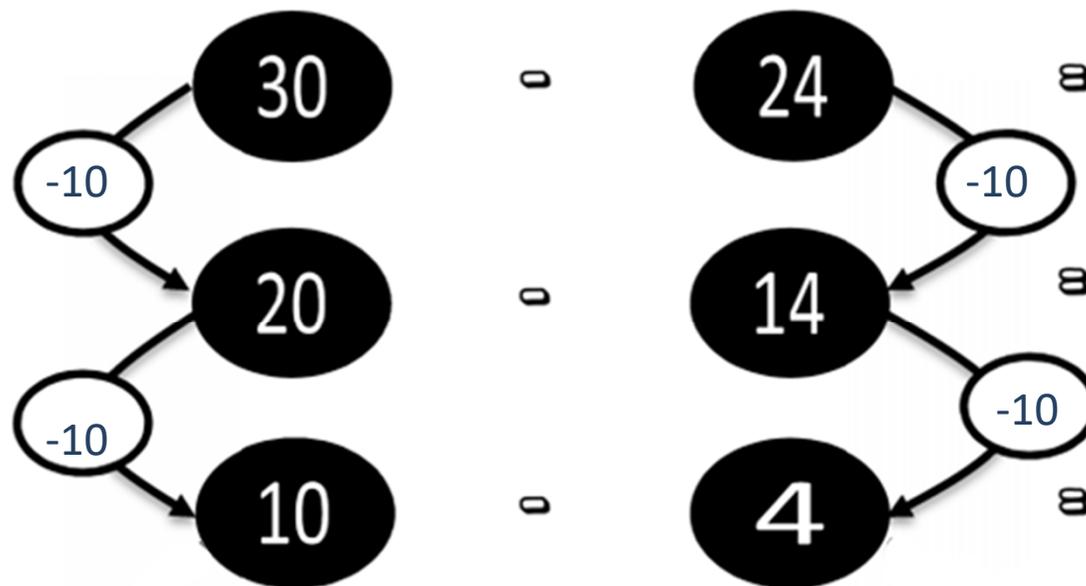




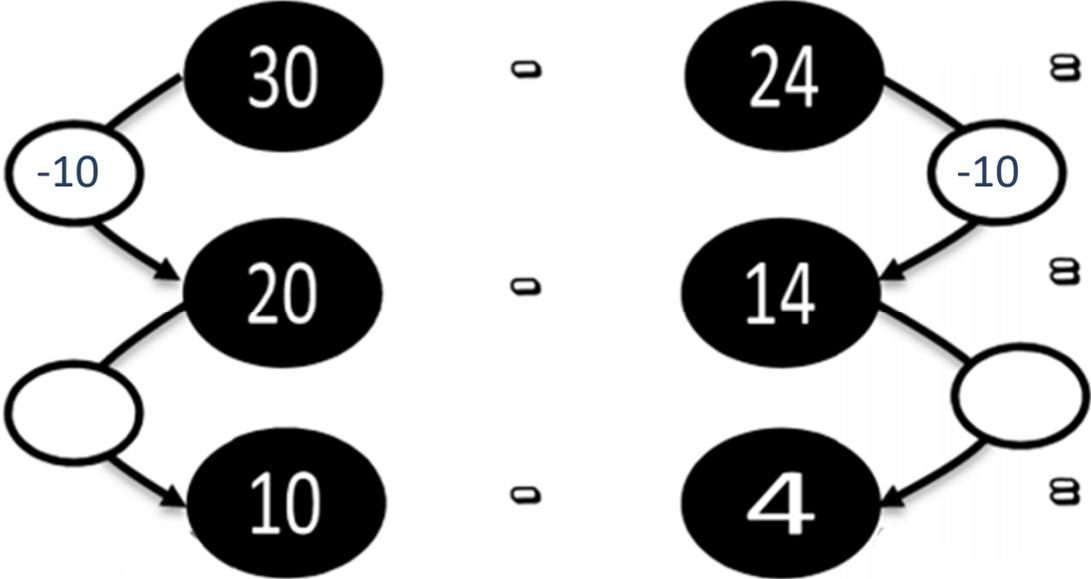
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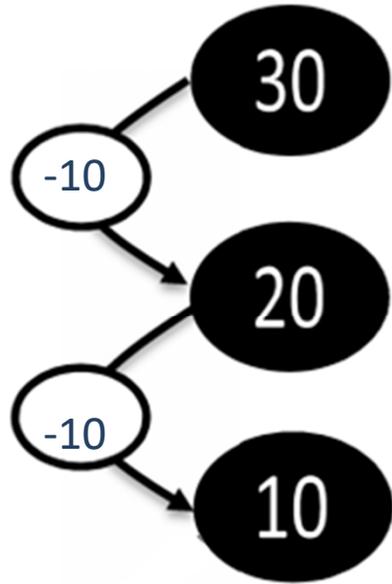
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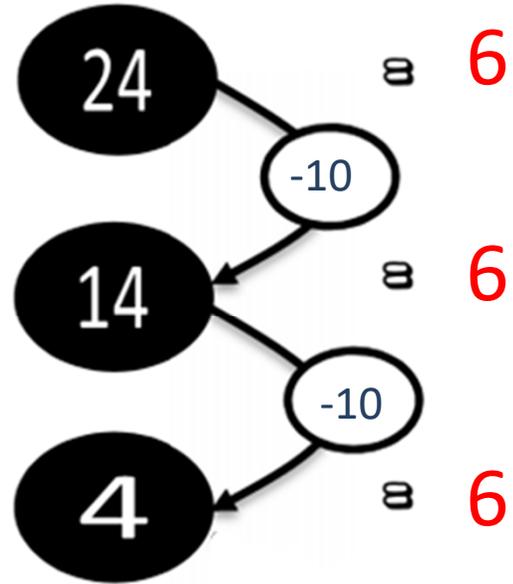


Et pour passer de 20 à 10 et de 14 à 4?





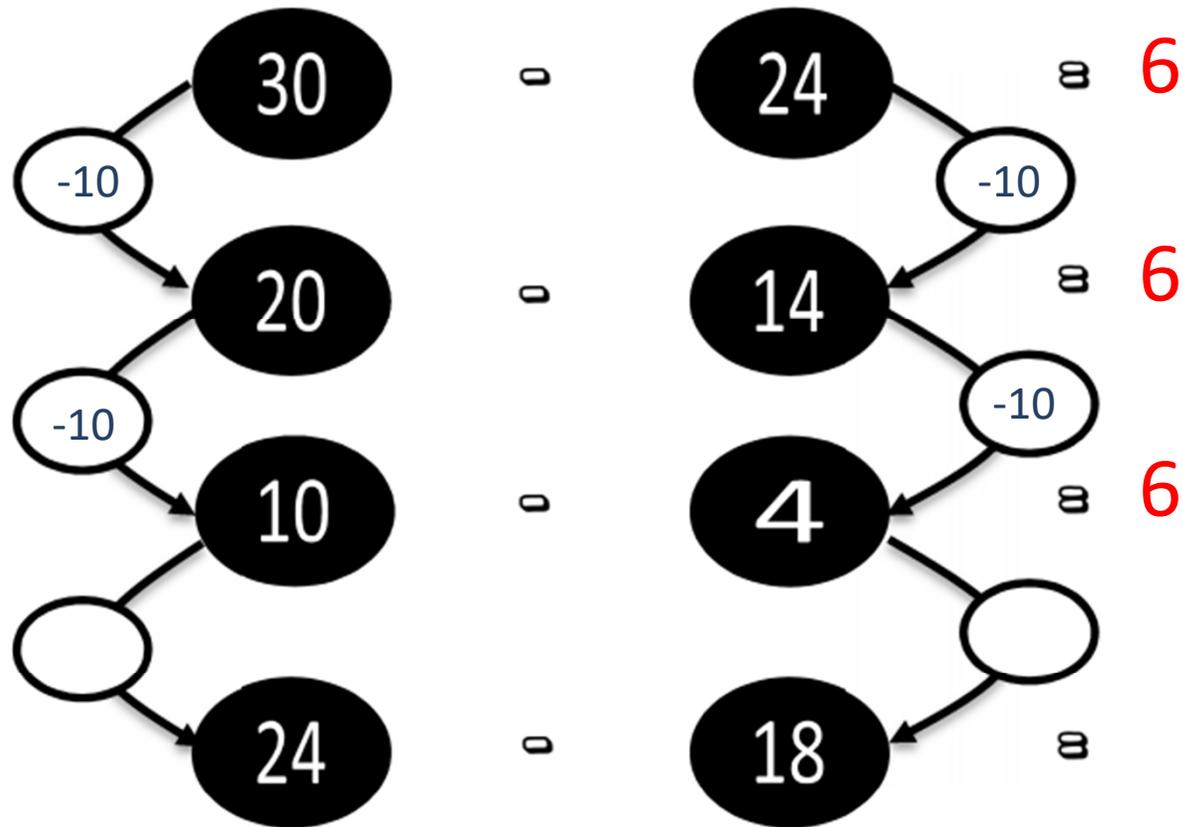
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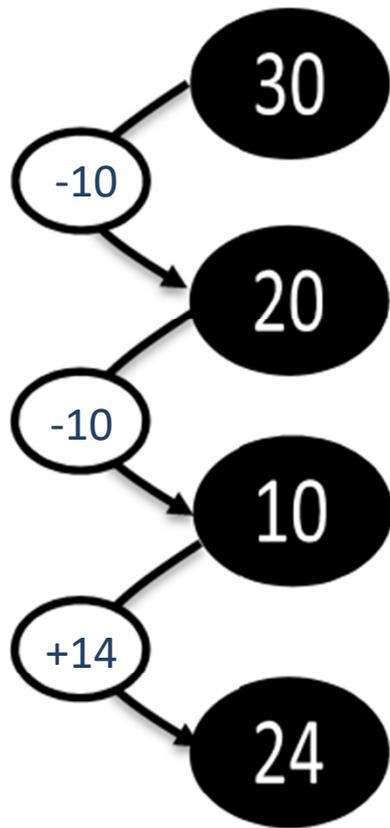
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Et de 10 à 24 et de 4 à 18?



Quelle règle pouvez-vous déduire ?

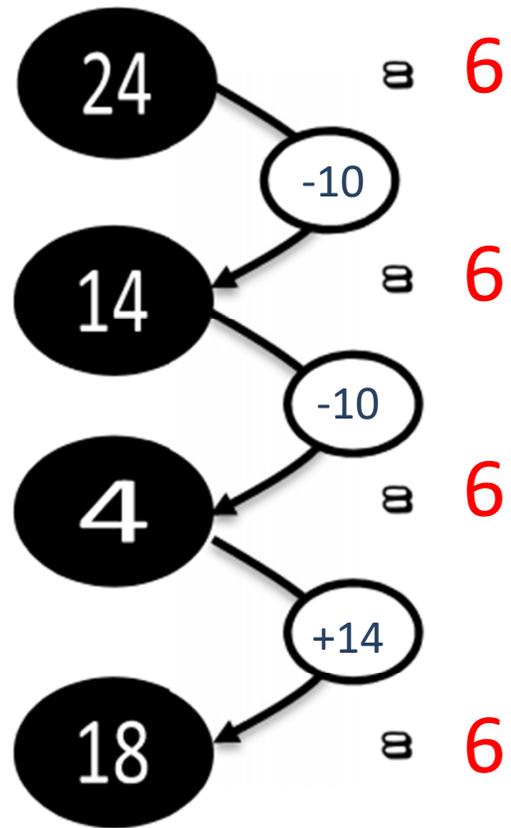


o

o

o

o



Quelle règle pouvez-vous déduire ?

Règle:

Si j'ajoute ou j'enlève aux 2 termes d'une différence, un même nombre (ici 10)

$$\begin{array}{r} 30 - 24 \\ 20 - 14 \end{array}$$

The diagram illustrates the rule by showing two subtraction problems. The first is $30 - 24$ and the second is $20 - 14$. A blue box containing the number 10 is connected to 30 and 20, indicating that 10 was subtracted from both terms. Another blue box containing the number 10 is connected to 24 and 14, indicating that 10 was subtracted from both terms.

.

Règle:

La différence reste la même

$$30-24= 6$$

$$20-14= 6$$

Règle:

C'est ce qu'on appelle la règle des écarts.

Règle à copier:

Si j'ajoute ou j'enlève aux 2 termes d'une différence, un même nombre (ici 10)

$$\begin{array}{r} 30 - 24 \\ 20 - 14 \end{array}$$

La différence reste la même

$$30 - 24 = 6$$

$$20 - 14 = 6$$

C'est ce qu'on appelle la règle des écarts.

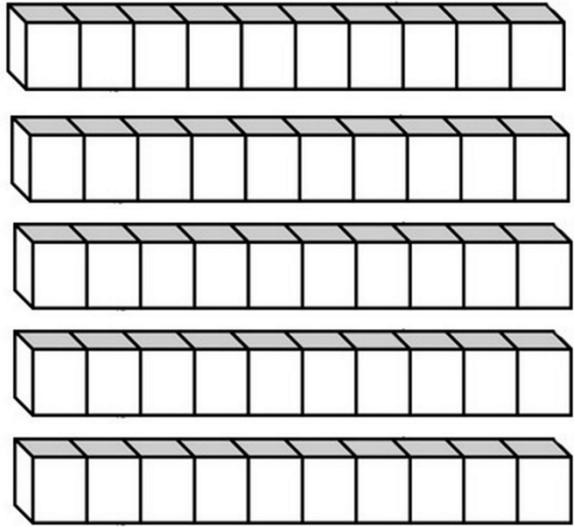
J'ai également en tête les équivalences numériques

10 unités = 1 dizaine

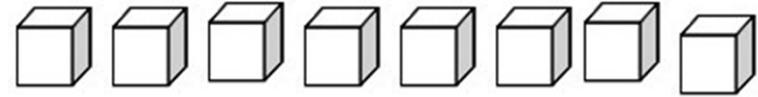
10 dizaines = 1 centaine

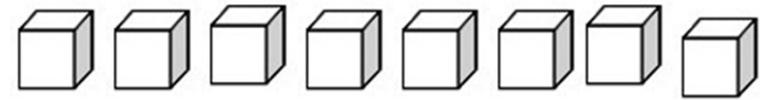
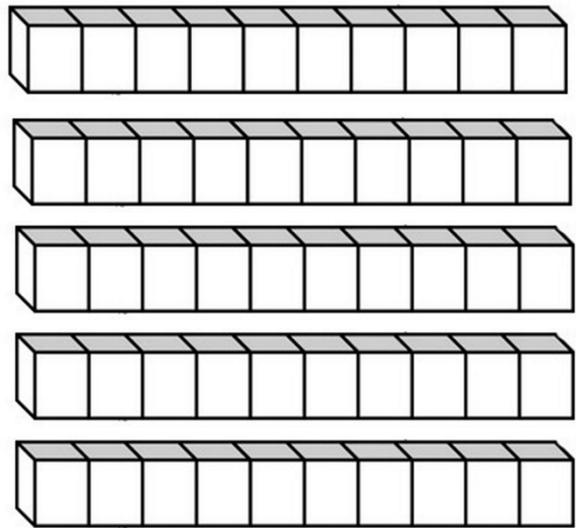
10 centaines = 1 unité de mille etc.

Posez moi 58-19



$$\begin{array}{r} 58 \\ - 19 \\ \hline \end{array}$$

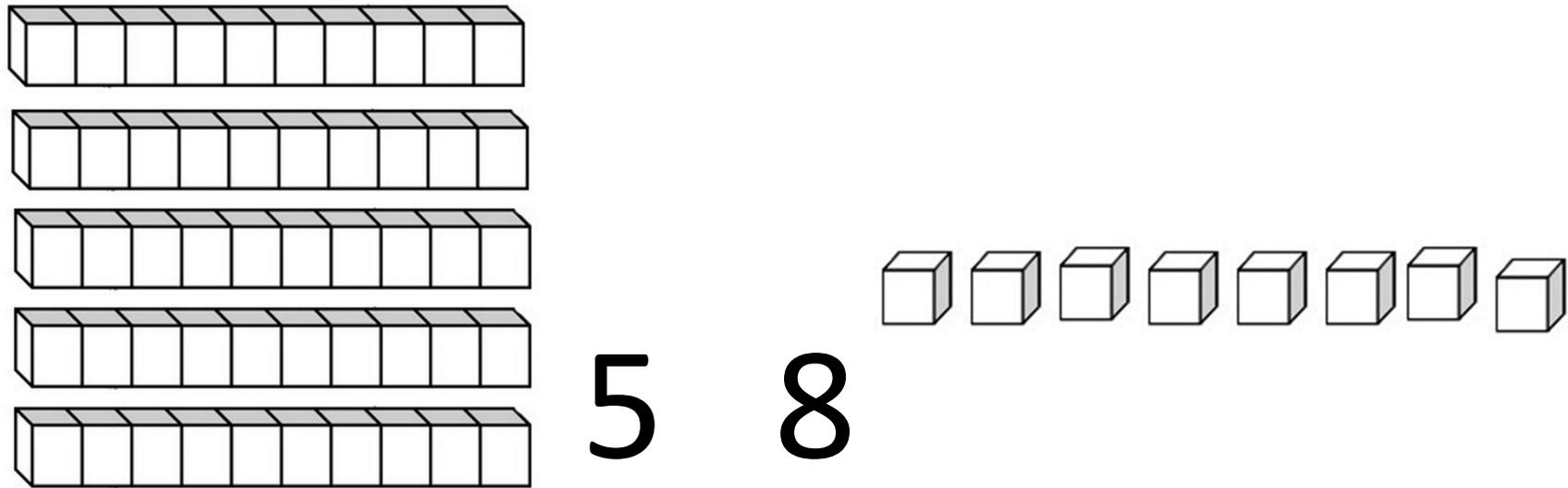




5 8

- 1 9

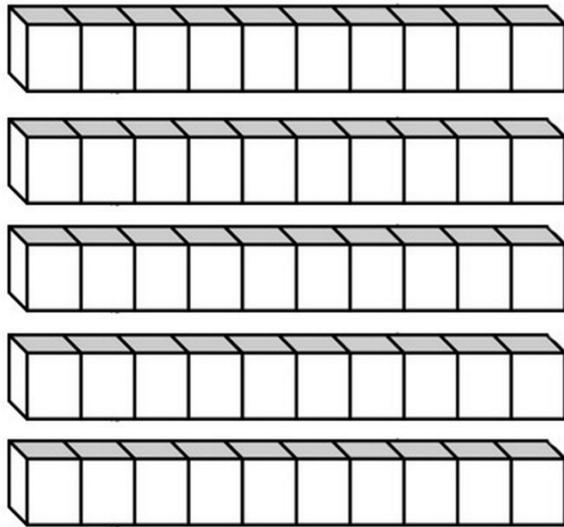
Par quoi je commence?



5 8

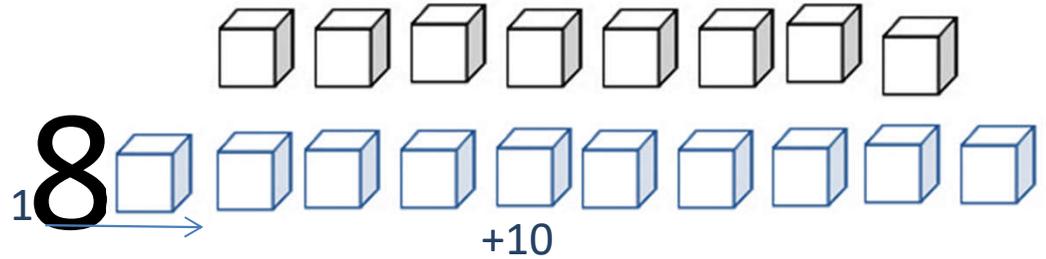
- 1 9

Je commence par les unités 8 – 9 je ne
peux pas



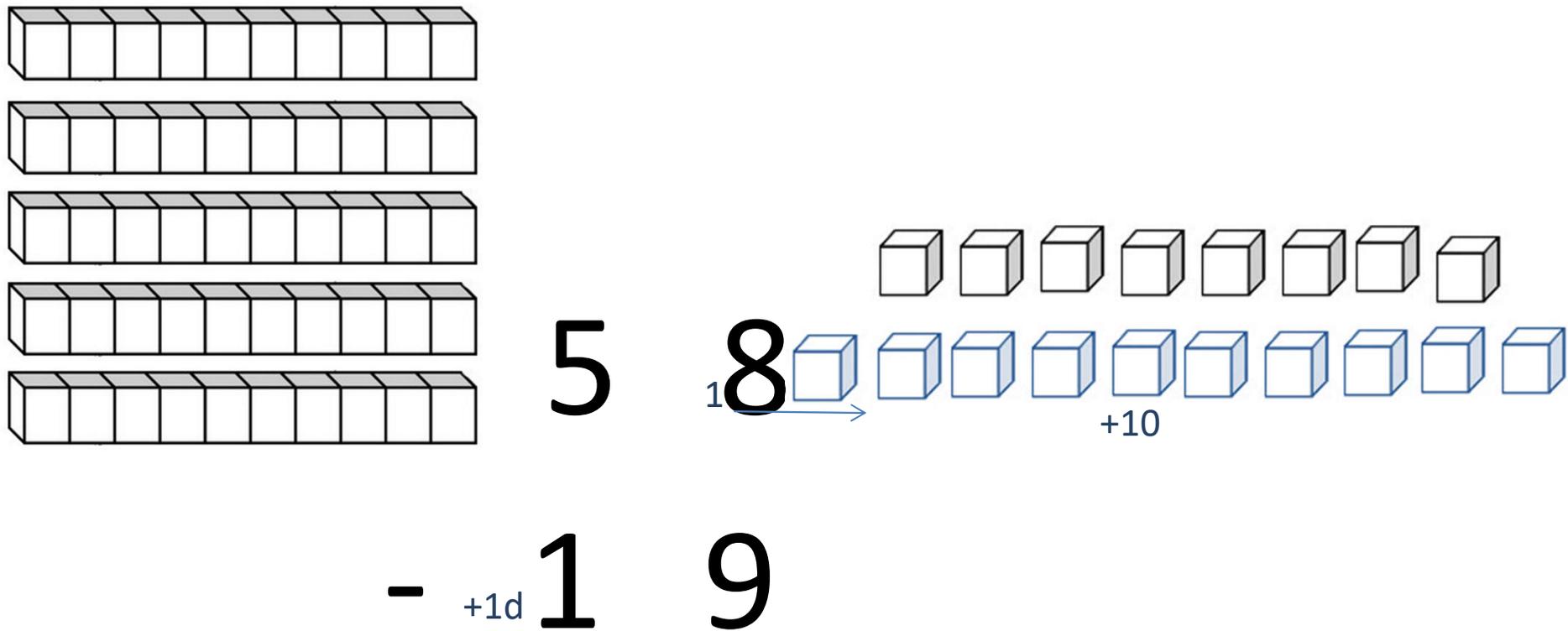
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8

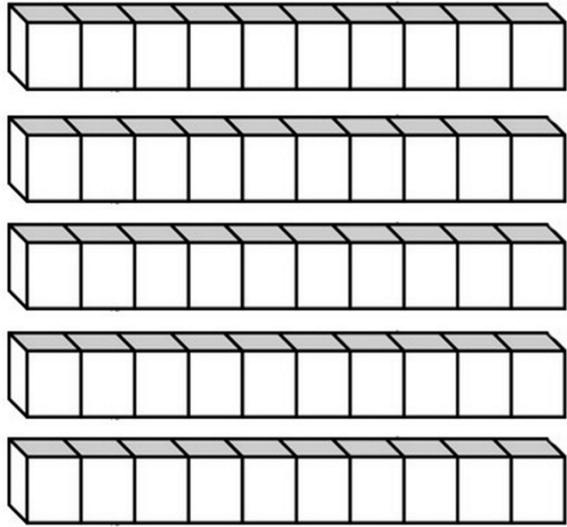


- 1 9

Je vais donc utiliser la règle des écarts.

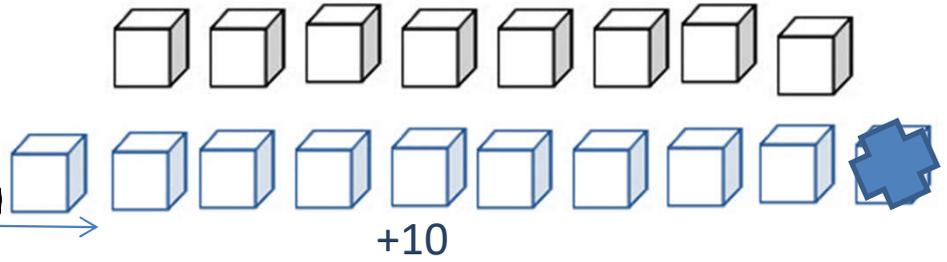


Selon la règle des écarts, si j'ajoute +
10 au nombre du haut, je devrai
ajouter une dizaine au nombre du bas.



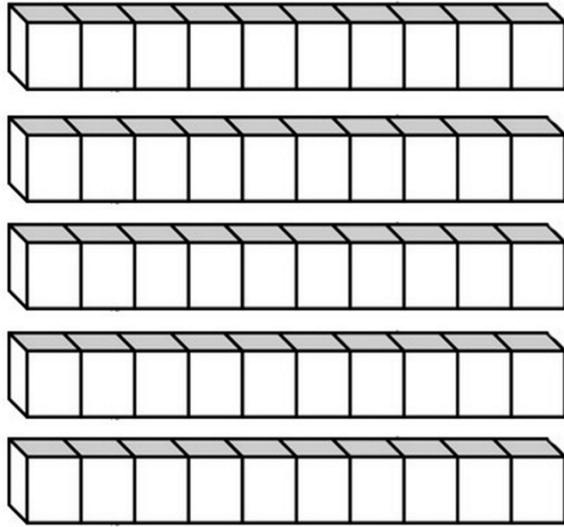
5

18



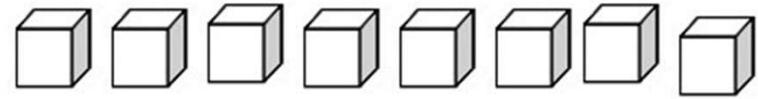
- ^{+1d} 19

18-9



5

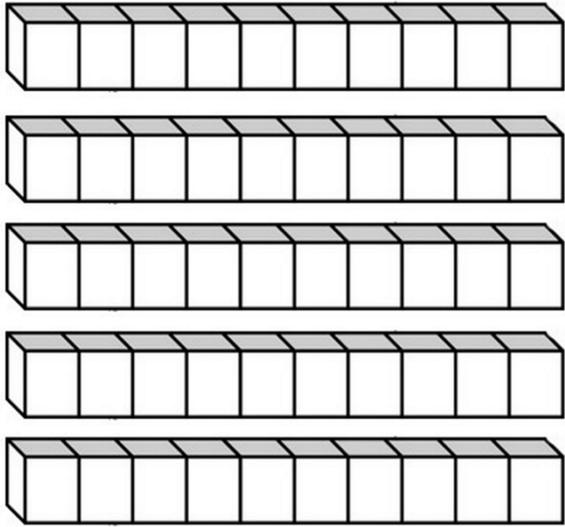
8



+10

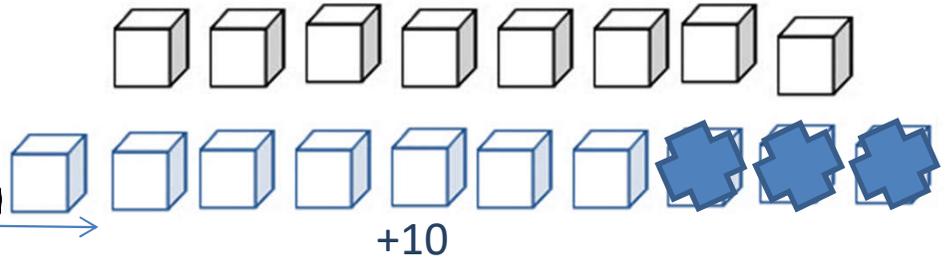


- +1d 1 9

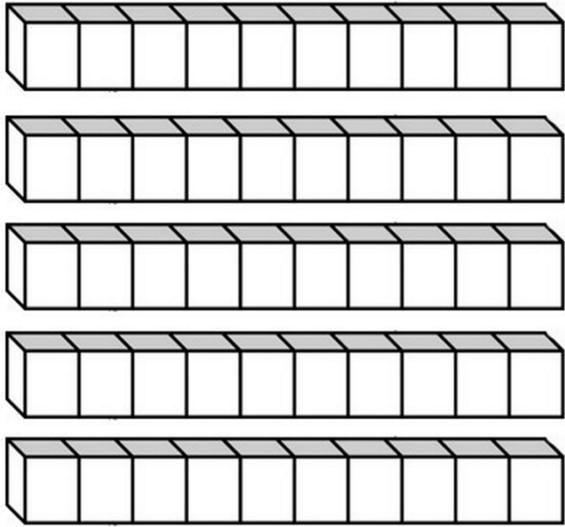


5

8

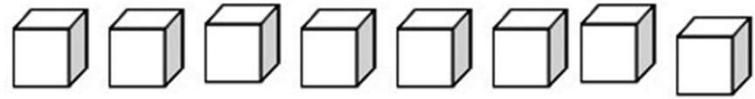


- +1d 1 9



5

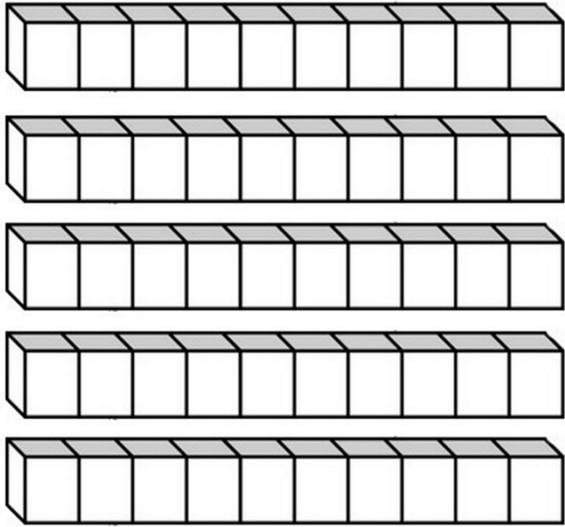
8



+10

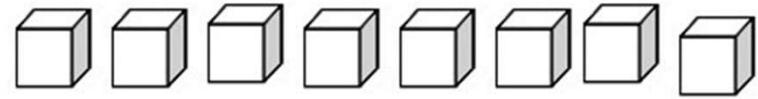


- +1d 1 9



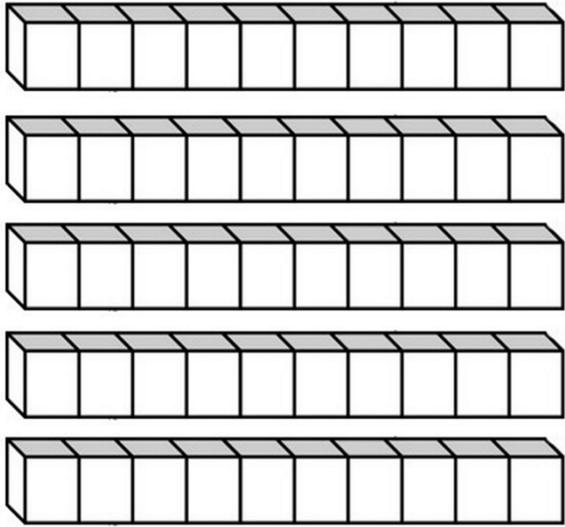
5

8



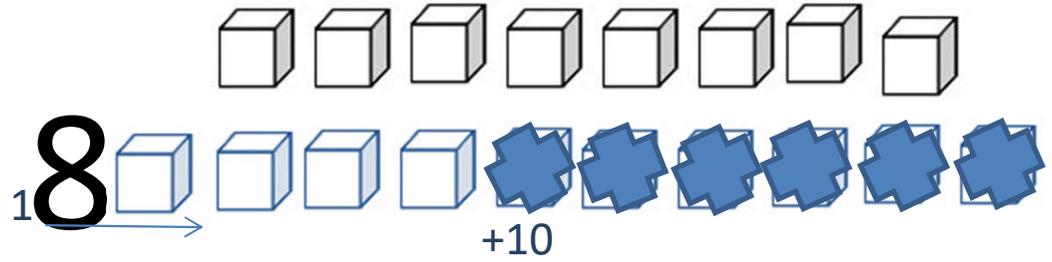
+10

- +1d 1 9

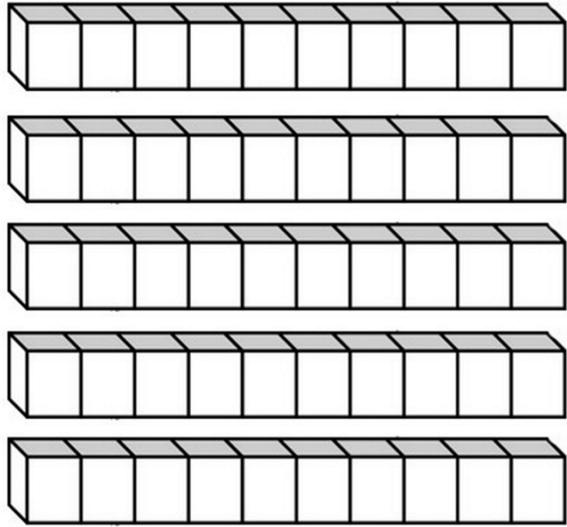


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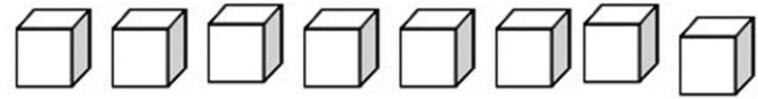


- +1d 1 9



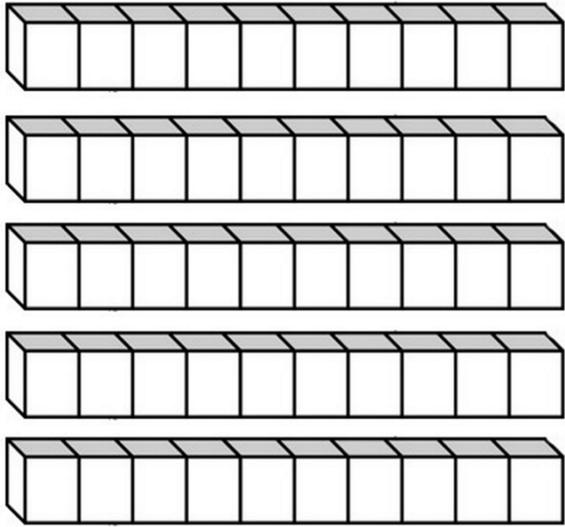
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8



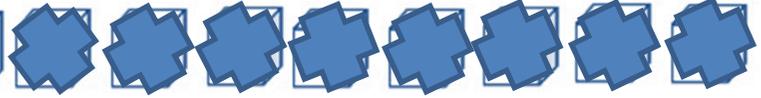
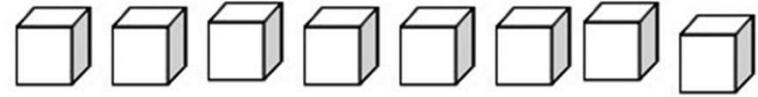
+10

- +1d 1 9



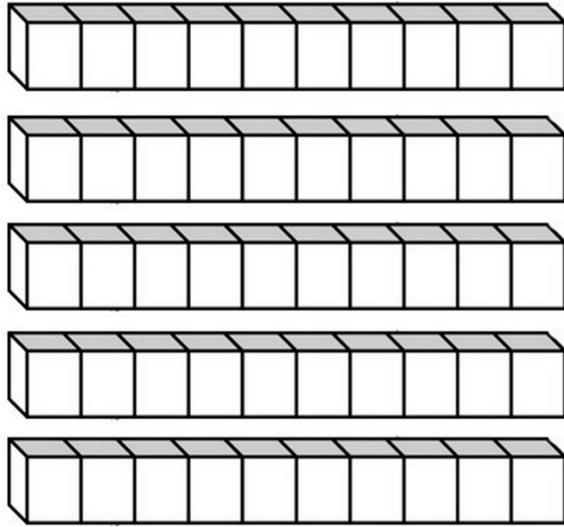
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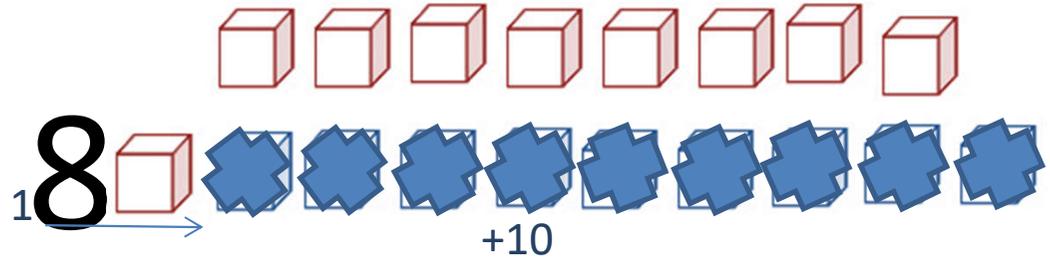
+10

- +1d 1 9



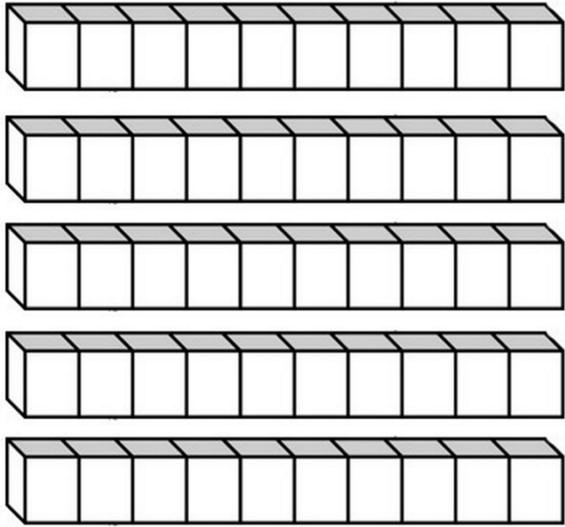
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8

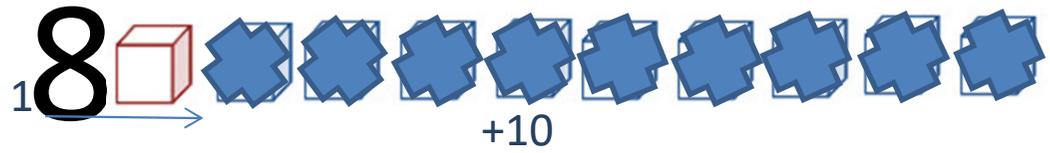


$$\begin{array}{r} - \\ +1d \quad 19 \end{array}$$

9



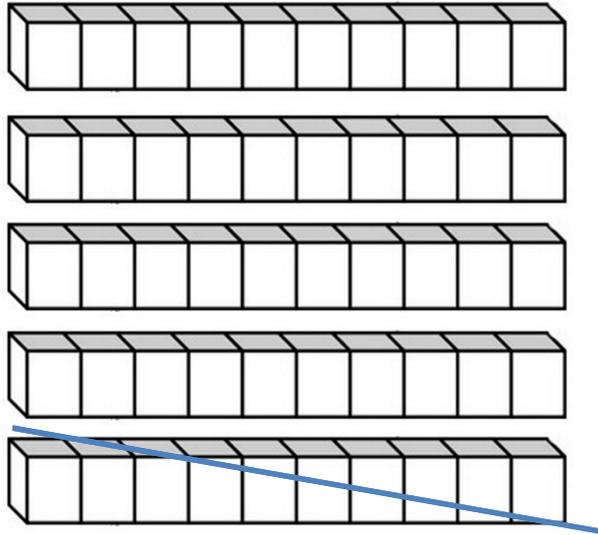
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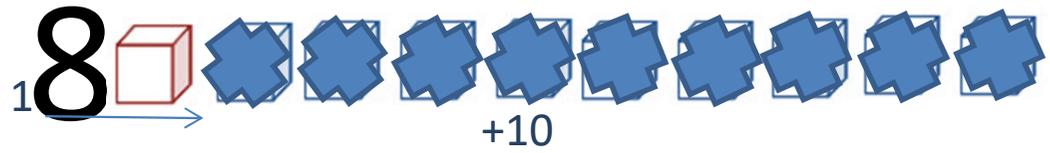
$$\begin{array}{r}
 - \quad +1d \quad 1 \quad 9 \\
 \hline
 \end{array}$$

9

$$5 - 2 =$$



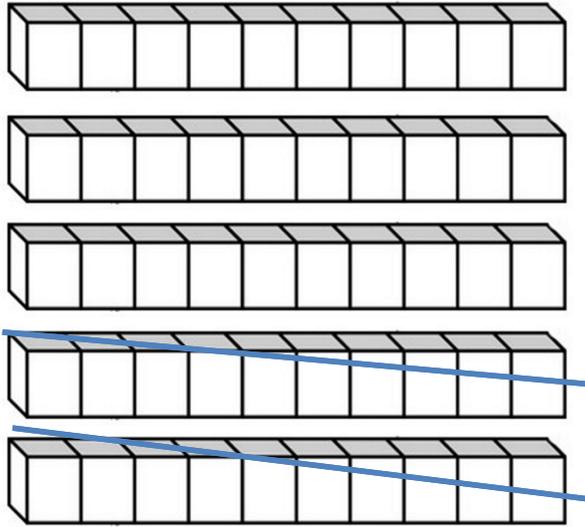
5



$$\begin{array}{r}
 - \quad +1d \quad 1 \quad 9 \\
 \hline
 \end{array}$$

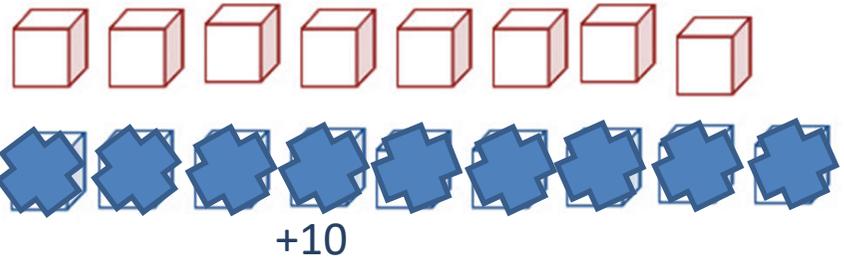
9

$$5 - 2 =$$



5

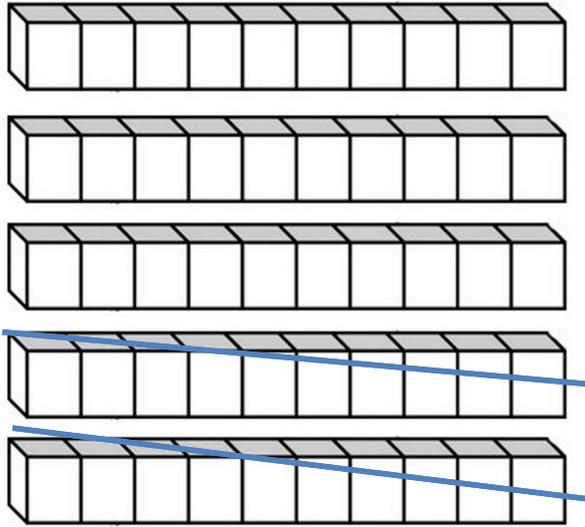
18



- ^{+1d} 19

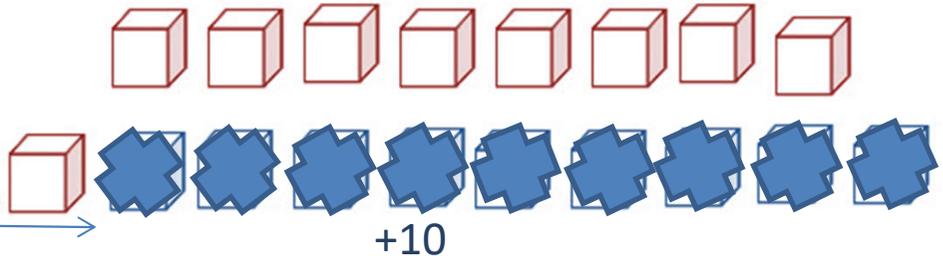
9

$$5 - 2 =$$



5

1 8

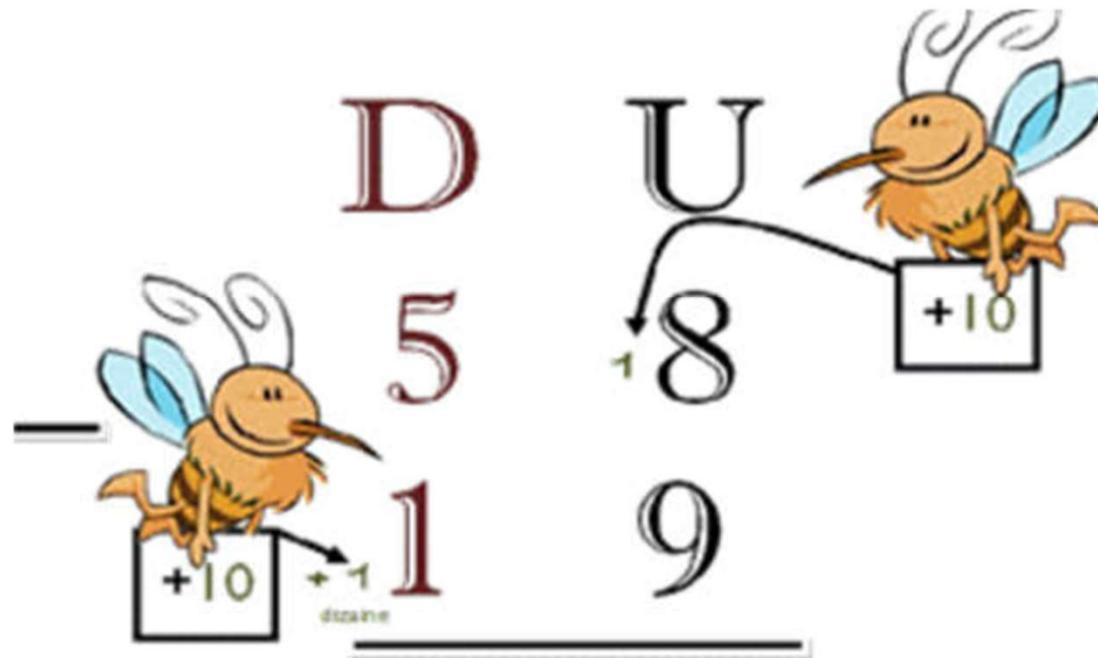


$$\begin{array}{r}
 - \quad +1d \quad 1 \quad 9 \\
 \hline
 \end{array}$$

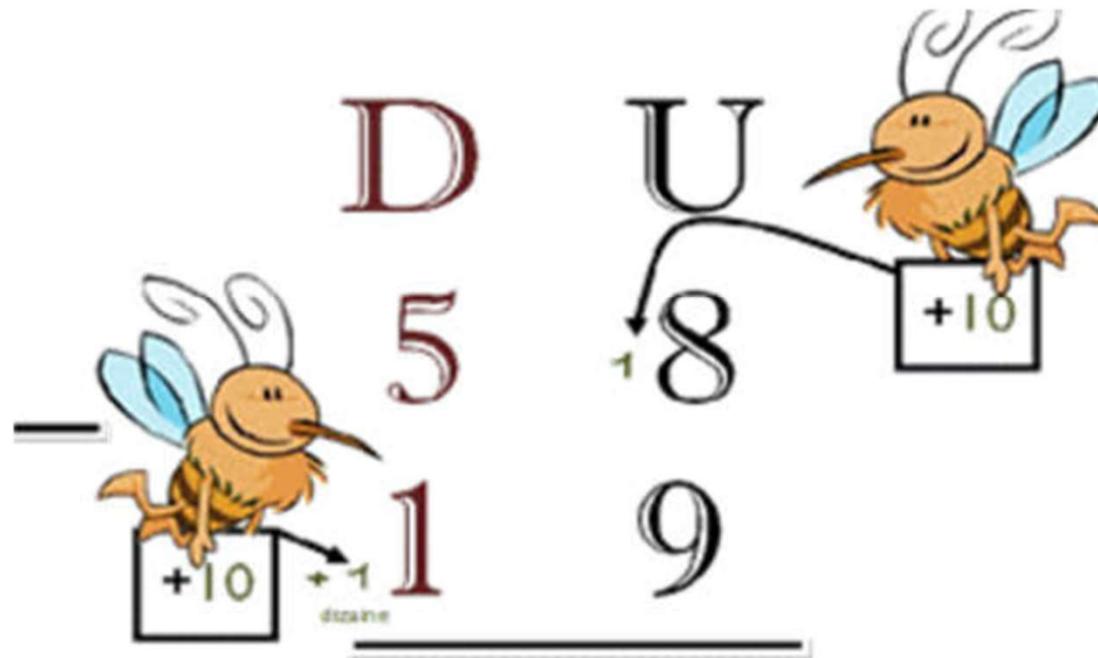
3 9

$$5 - 2 =$$

Observe cette soustraction ci-dessous. Explique pourquoi +10 en haut et + 1 dizaine en bas ?



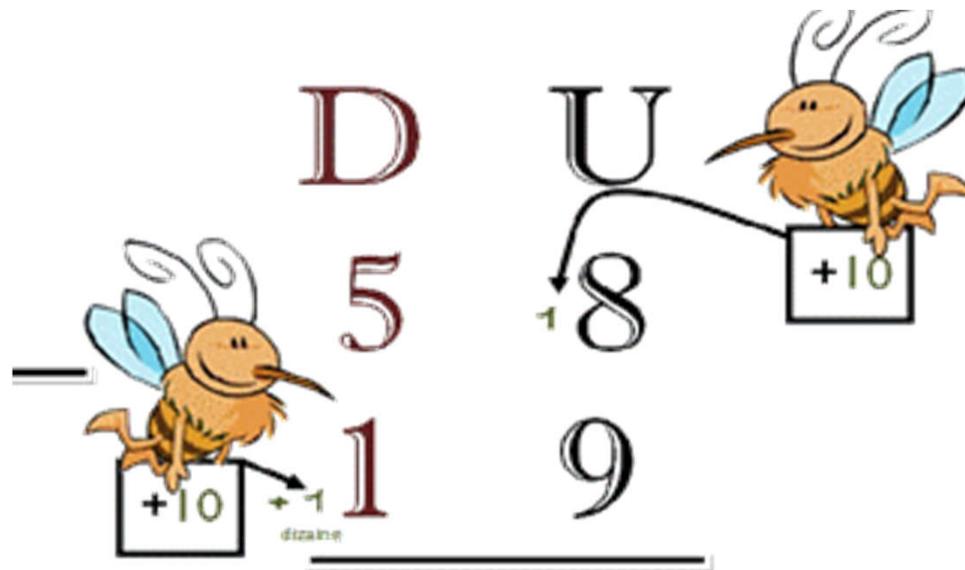
Observe cette soustraction ci-dessous. Explique pourquoi +10 en haut et + 1 dizaine en bas ?



9

Observe cette soustraction ci-dessous. Explique pourquoi +10 en haut et + 1 dizaine en bas ?

The image shows a subtraction problem: $51 - 18 = 39$. The digits are arranged in columns: D (Dizaine) and U (Unité). The numbers are 51, 18, and 39. A horizontal line is drawn under the 18. The result 39 is written below the line. Two cartoon bees are used to explain the borrowing process. One bee is on the left, sitting on a box labeled '+10'. An arrow points from this box to the '1' in the units column of the minuend (51), with a small '+1' and the word 'dizaine' written below it. Another bee is on the right, sitting on a box labeled '+10'. An arrow points from this box to the '8' in the units column of the subtrahend (18), with a small '-1' written to its left. The digits '3' and '9' are written in red below the horizontal line.



Règle des écarts : Je peux ajouter le même nombre aux 2 nombres que je soustrais, la différence restera la même. J'ajoute 10 dans les unités du nombre du haut et j'ajoute 1 dans les dizaines du nombre du bas.

On s'entraîne. Posez puis calculez.

Niveau 1

1) $254 - 49$

2) $1879 - 192$

3) $659 - 461$

4) $478 - 86$

5) $187 - 69$

Niveau 2

$1548 - 941$

$7894 - 1295$

$895 - 97$

$6862 - 2474$

$5489 - 3696$

Niveau 3

$14\ 589 - 5\ 691$

$25\ 895 - 16\ 907$

$89\ 546 - 42\ 798$

$78\ 652 - 49\ 823$

$456\ 124 - 10\ 946$

Corrigé

Niveau 1

1) $254 - 49 = 205$

2) $1879 - 192 = 1687$

3) $659 - 461 = 198$

4) $478 - 86 = 392$

5) $187 - 69 = 118$

Niveau 2

$1548 - 941 = 607$

$7894 - 1295 = 6599$

$895 - 97 = 798$

$6862 - 2474 = 4388$

$5489 - 3696 = 1793$

Niveau 3

$14\ 589 - 5\ 691 = 8\ 898$

$25\ 895 - 16\ 907 = 8\ 988$

$89\ 546 - 42\ 798 = 46\ 748$

$78\ 652 - 49\ 823 = 28\ 829$

$456\ 124 - 10\ 946 = 445\ 178$