

يوجد لدى ٣ بصلات، ولدى ٤ بصلات، ولدى ٢ بصلتين.

٢ ٤ ٣

كم يصبح مجموع عدد البصل إذا جمعنا ما لدى الثلاثة؟

سويًا سويًا

٩

سويًا سويًا

٩ بصلات.

جيد!

سوف أمثل هذه الرسم من خلال «صيغة الجمع».

سويياً سويياً

دعونا نكتب عدد البصل داخل

زائد زائد

=  +  +

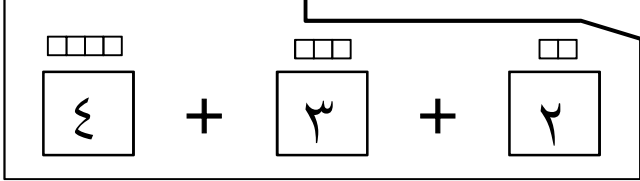
جيداً!

زائد زائد

9 = 2 + 4 + 3

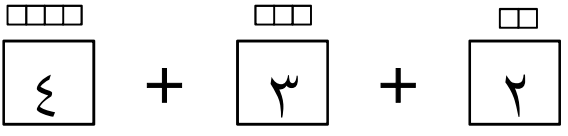
دعونا نكتبهم بصيغة الجمع حتى لو كانوا ثلاثة أرقام.

دعونا نجمع الثلاثة أرقام.



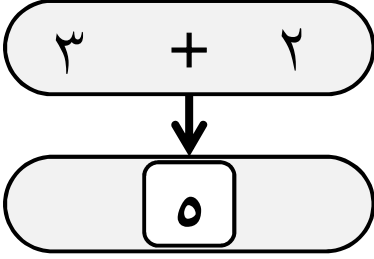
٤ + ٣ + ٢

سوف نجمع كل اثنين معًا.



٤ + ٣ + ٢

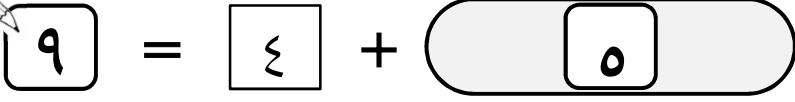
أولاً، سوف نجمع ٢ إلى ٣.



٤ + ٥

جيد!


سوف نجمع ٤ إلى ٥ التي هي مجموع ٢ إلى ٣.




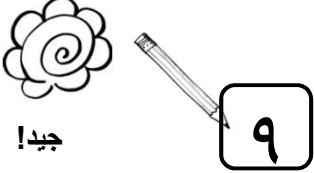
٩ = ٤ + ٥

سوف تفهمها، إذا كان الجمع بين رقمين..

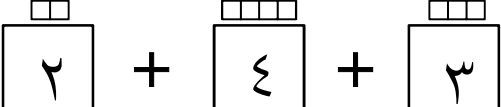
مثال دعونا نكتب العدد المنطيق داخل



  
 $4 + 3 + 2$




  
 $4 + (3 + 2)$

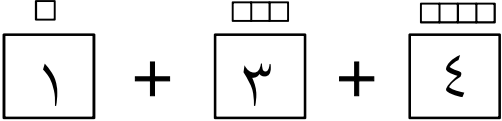

  
**جيدا!**  $9 = 4 + 5$


السؤال دعونا نكتب العدد المنطيق داخل




  
 $2 + 4 + 3$  (١)


  
 $2 + (4 + 3)$


  
 =  $2 +$  


  
 $1 + 3 + 4$  (٢)


  
 $1 + (3 + 4)$


  
 =  $1 +$  

السؤال دعونا نكتب العدد المنطبق داخل

(٣)

=  +

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(٤)

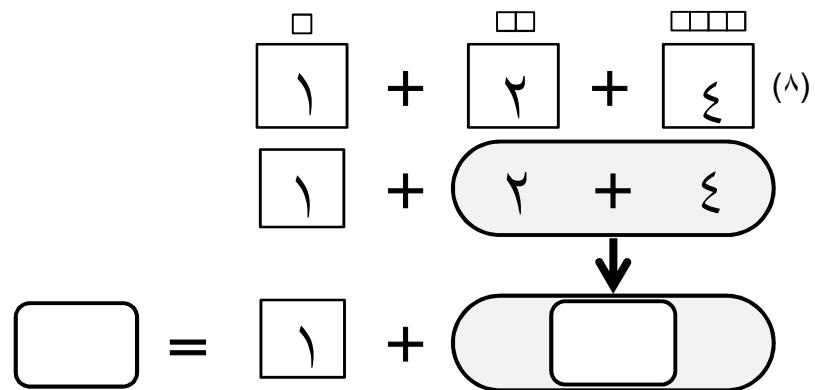
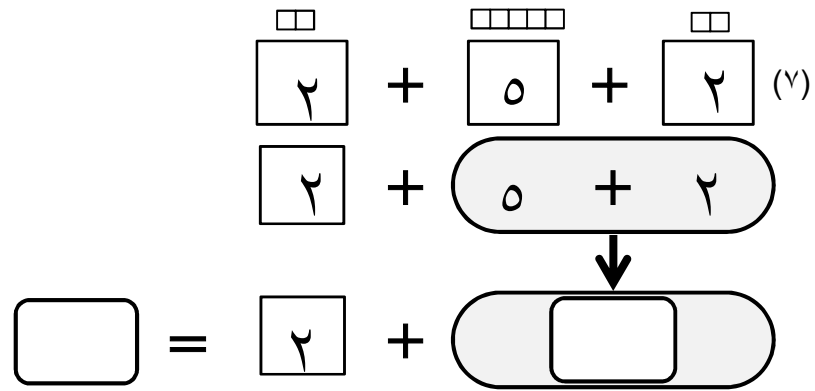
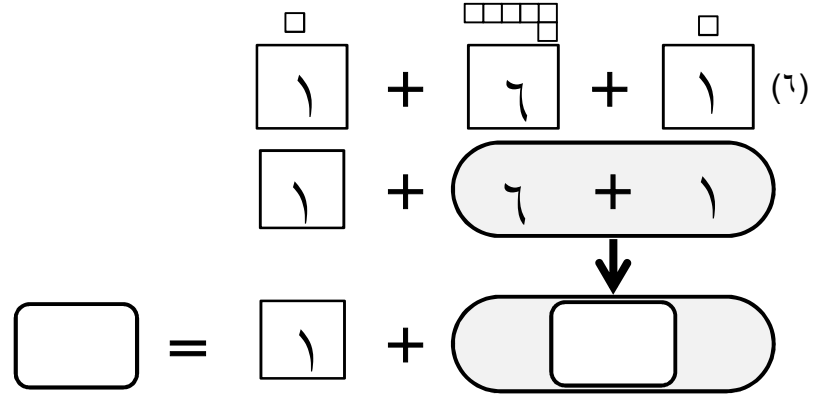
=  +

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(٥)

=  +

السؤال دعونا نكتب العدد المنطبق داخل



السؤال دعونا نكتب العدد المنطبق داخل

$$\begin{array}{c}
 \begin{array}{ccc}
 \begin{array}{|c|} \hline \square\square\square \\ \hline ٣ \\ \hline \end{array} & + & \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} & + & \begin{array}{|c|} \hline \square\square\square\square \\ \hline ٤ \\ \hline \end{array} & (٩) \\
 \begin{array}{|c|} \hline ٣ \\ \hline \end{array} & + & \begin{array}{|c|c|c|} \hline ١ & + & ٤ \\ \hline \end{array} \\
 \downarrow \\
 \begin{array}{|c|} \hline \square \\ \hline \end{array} & = & \begin{array}{|c|} \hline ٣ \\ \hline \end{array} & + & \begin{array}{|c|c|c|} \hline & & \square \\ \hline \end{array}
 \end{array}$$

$$\begin{array}{c}
 \begin{array}{ccc}
 \begin{array}{|c|} \hline \square\square \\ \hline ٢ \\ \hline \end{array} & + & \begin{array}{|c|} \hline \square\square\square \\ \hline ٣ \\ \hline \end{array} & + & \begin{array}{|c|} \hline \square\square\square\square \\ \hline ٥ \\ \hline \end{array} & (١٠) \\
 \begin{array}{|c|} \hline ٢ \\ \hline \end{array} & + & \begin{array}{|c|c|c|} \hline ٣ & + & ٥ \\ \hline \end{array} \\
 \downarrow \\
 \begin{array}{|c|} \hline \square \\ \hline \end{array} & = & \begin{array}{|c|} \hline ٢ \\ \hline \end{array} & + & \begin{array}{|c|c|c|} \hline & & \square \\ \hline \end{array}
 \end{array}$$

$$\begin{array}{c}
 \begin{array}{ccc}
 \begin{array}{|c|} \hline \square\square \\ \hline ٢ \\ \hline \end{array} & + & \begin{array}{|c|} \hline \square\square\square\square \\ \hline ٤ \\ \hline \end{array} & + & \begin{array}{|c|} \hline \square\square \\ \hline ٢ \\ \hline \end{array} & (١١) \\
 \begin{array}{|c|} \hline ٢ \\ \hline \end{array} & + & \begin{array}{|c|c|c|} \hline ٤ & + & ٢ \\ \hline \end{array} \\
 \downarrow \\
 \begin{array}{|c|} \hline \square \\ \hline \end{array} & = & \begin{array}{|c|} \hline ٢ \\ \hline \end{array} & + & \begin{array}{|c|c|c|} \hline & & \square \\ \hline \end{array}
 \end{array}$$

السؤال دعونا نكتب العدد المنطبق داخل

$$\begin{array}{c} \square\square\square \\ \boxed{3} \end{array} + \begin{array}{c} \square\square\square \\ \boxed{3} \end{array} + \begin{array}{c} \square\square \\ \boxed{2} \end{array} \quad (١٢)$$

$$\begin{array}{c} \boxed{3} \end{array} + \begin{array}{c} \boxed{3 + 2} \end{array}$$



$$\boxed{\phantom{00}} = \begin{array}{c} \boxed{3} \end{array} + \begin{array}{c} \boxed{\phantom{00}} \end{array}$$

$$\begin{array}{c} \square\square \\ \boxed{2} \end{array} + \begin{array}{c} \square\square\square\square \\ \boxed{5} \end{array} + \begin{array}{c} \square\square\square \\ \boxed{3} \end{array} \quad (١٣)$$

$$\begin{array}{c} \boxed{2} \end{array} + \begin{array}{c} \boxed{5 + 3} \end{array}$$



$$\boxed{\phantom{00}} = \begin{array}{c} \boxed{2} \end{array} + \begin{array}{c} \boxed{\phantom{00}} \end{array}$$

$$\begin{array}{c} \square\square\square\square \\ \boxed{4} \end{array} + \begin{array}{c} \square \\ \boxed{1} \end{array} + \begin{array}{c} \square\square\square\square \\ \boxed{4} \end{array} \quad (١٤)$$

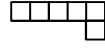



$$\begin{array}{c} \boxed{4} \end{array} + \begin{array}{c} \boxed{1 + 4} \end{array}$$



$$\boxed{\phantom{00}} = \begin{array}{c} \boxed{4} \end{array} + \begin{array}{c} \boxed{\phantom{00}} \end{array}$$

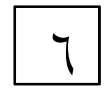
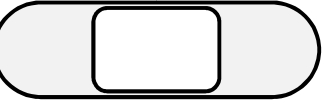


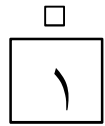
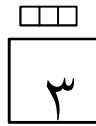
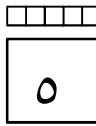
السؤال دعونا نكتب العدد المنطبق داخل


 $\square$ 

 $+$ 

 $+$ 

 $(١٥)$


 $+$ 

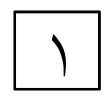



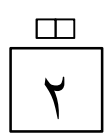
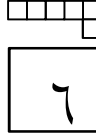
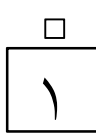

$=$ 

 $+$ 



 $+$ 

 $+$ 

 $(١٦)$


 $+$ 






$=$ 

 $+$ 



 $+$ 

 $+$ 

 $(١٧)$


 $+$ 




$=$ 

 $+$ 


السؤال دعونا نكتب العدد المنطبق داخل

(١٨)

$$\begin{array}{c} \square \\ ٢ \end{array} + \begin{array}{c} \square \square \square \square \\ ٥ \end{array} + \begin{array}{c} \square \square \\ ٣ \end{array}$$

$$\begin{array}{c} \square \\ ٢ \end{array} + \begin{array}{c} \text{---} \\ ٥ + ٣ \end{array}$$

↓

$$\square = \begin{array}{c} \square \\ ٢ \end{array} + \begin{array}{c} \text{---} \\ \square \end{array}$$


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(١٩)

$$\begin{array}{c} \square \\ ١ \end{array} + \begin{array}{c} \square \square \\ ٢ \end{array} + \begin{array}{c} \square \square \square \square \\ ٦ \end{array}$$

$$\begin{array}{c} \square \\ ١ \end{array} + \begin{array}{c} \text{---} \\ ٢ + ٦ \end{array}$$

↓

$$\square = \begin{array}{c} \square \\ ١ \end{array} + \begin{array}{c} \text{---} \\ \square \end{array}$$


---

(٢٠)

$$\begin{array}{c} \square \\ ١ \end{array} + \begin{array}{c} \square \square \\ ٢ \end{array} + \begin{array}{c} \square \square \square \square \\ ٥ \end{array}$$

$$\begin{array}{c} \square \\ ١ \end{array} + \begin{array}{c} \text{---} \\ ٢ + ٥ \end{array}$$

↓

$$\square = \begin{array}{c} \square \\ ١ \end{array} + \begin{array}{c} \text{---} \\ \square \end{array}$$

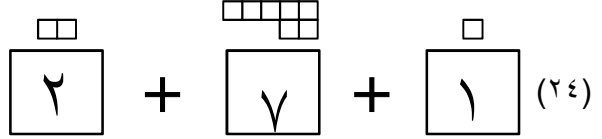
السؤال دعونا نكتب العدد المنطبق داخل

$$\begin{array}{c}
 \square \\
 \boxed{1} + \boxed{5} + \boxed{2} \quad (21) \\
 \boxed{1} + \boxed{5 + 2} \\
 \downarrow \\
 \square = \boxed{1} + \boxed{\phantom{00}}
 \end{array}$$

$$\begin{array}{c}
 \square \\
 \boxed{1} + \boxed{1} + \boxed{7} \quad (22) \\
 \boxed{1} + \boxed{1 + 7} \\
 \downarrow \\
 \square = \boxed{1} + \boxed{\phantom{00}}
 \end{array}$$

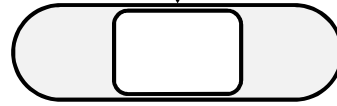
$$\begin{array}{c}
 \square \\
 \boxed{1} + \boxed{3} + \boxed{6} \quad (23) \\
 \boxed{1} + \boxed{3 + 6} \\
 \downarrow \\
 \square = \boxed{1} + \boxed{\phantom{00}}
 \end{array}$$

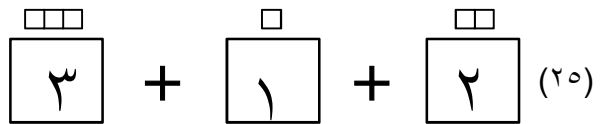
السؤال دعونا نكتب العدد المنطبق داخل


 $2 + 7 + 1$  (٢٤)


 $2 + (7 + 1)$

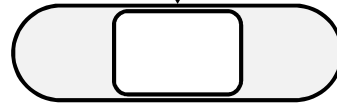


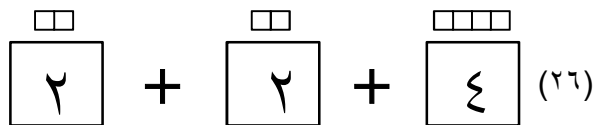
=  $2 +$  


 $3 + 1 + 2$  (٢٥)


 $3 + (1 + 2)$

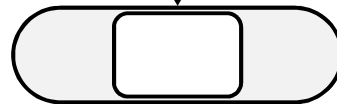


=  $3 +$  


 $2 + 2 + 4$  (٢٦)


 $2 + (2 + 4)$



=  $2 +$  

السؤال دعونا نكتب العدد المنطبق داخل

(٢٧)

$$\begin{array}{c} \square\square\square \\ \square \\ ٣ \end{array} + \begin{array}{c} \square \\ \square \\ ١ \end{array} + \begin{array}{c} \square\square\square\square \\ \square \\ ٤ \end{array}$$

$$\begin{array}{c} \square \\ \square \\ ٣ \end{array} + \begin{array}{c} \text{---} \\ ١ + ٤ \end{array}$$

↓

$$\square = \begin{array}{c} \square \\ \square \\ ٣ \end{array} + \begin{array}{c} \text{---} \\ \square \end{array}$$

(٢٨)

$$\begin{array}{c} \square \\ \square \\ ١ \end{array} + \begin{array}{c} \square\square \\ \square \\ ٢ \end{array} + \begin{array}{c} \square\square\square\square \\ \square \\ ٧ \end{array}$$

$$\begin{array}{c} \square \\ \square \\ ١ \end{array} + \begin{array}{c} \text{---} \\ ٢ + ٧ \end{array}$$

↓

$$\square = \begin{array}{c} \square \\ \square \\ ١ \end{array} + \begin{array}{c} \text{---} \\ \square \end{array}$$

(٢٩)

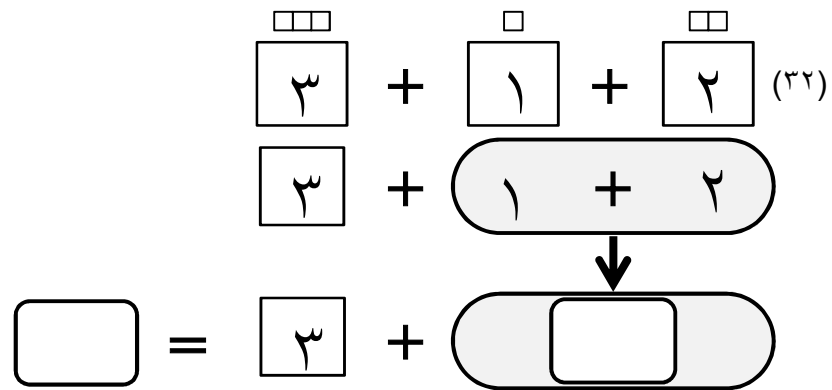
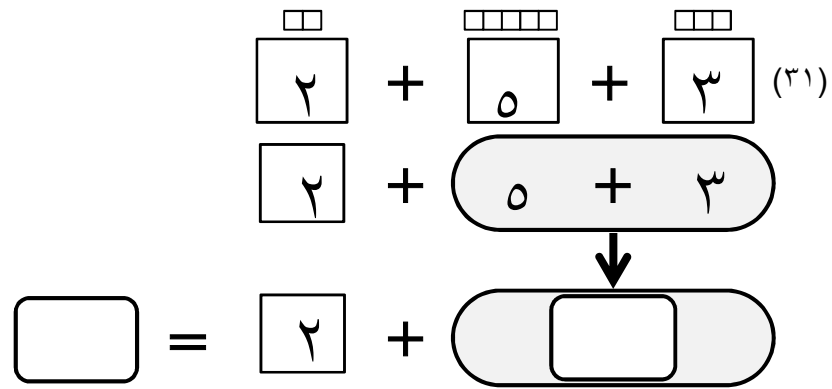
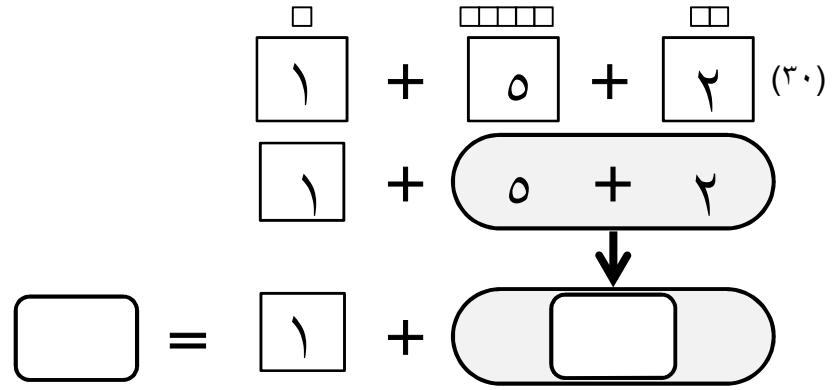
$$\begin{array}{c} \square \\ \square \\ ١ \end{array} + \begin{array}{c} \square\square\square\square \\ \square \\ ٤ \end{array} + \begin{array}{c} \square\square\square\square \\ \square \\ ٤ \end{array}$$

$$\begin{array}{c} \square \\ \square \\ ١ \end{array} + \begin{array}{c} \text{---} \\ ٤ + ٤ \end{array}$$

↓

$$\square = \begin{array}{c} \square \\ \square \\ ١ \end{array} + \begin{array}{c} \text{---} \\ \square \end{array}$$

السؤال دعونا نكتب العدد المنطبق داخل



السؤال دعونا نكتب العدد المنطبق داخل

(٣٣)

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(٣٤)

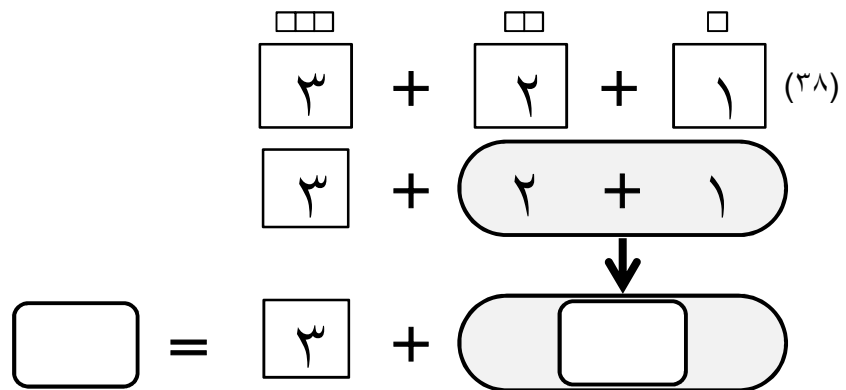
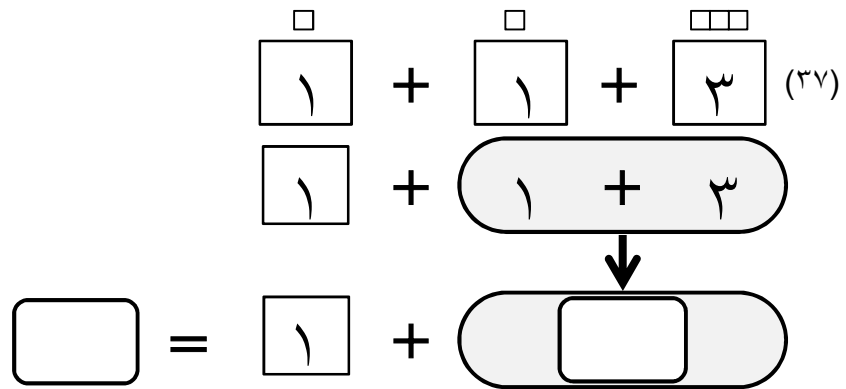
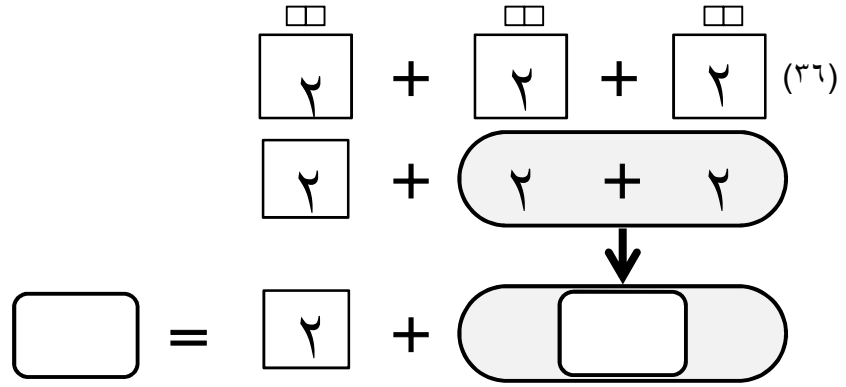
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(٣٥)

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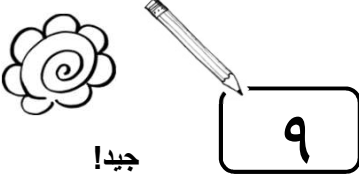
السؤال دعونا نكتب العدد المنطبق داخل





مثال  دعونا نكتب العدد المُنطبق داخل

جيدا!


 $9 = \begin{array}{|c|} \hline \square\square\square\square \\ \hline 4 \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square \\ \hline 3 \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square \\ \hline 2 \\ \hline \end{array}$

السؤال  دعونا نكتب العدد المُنطبق داخل

$$\square = \begin{array}{|c|} \hline \square\square\square\square \\ \hline 5 \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square \\ \hline 2 \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square \\ \hline 2 \\ \hline \end{array} \quad (1)$$

$$\square = \begin{array}{|c|} \hline \square\square\square \\ \hline 3 \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square\square \\ \hline 4 \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline 1 \\ \hline \end{array} \quad (2)$$

$$\square = \begin{array}{|c|} \hline \square \\ \hline 1 \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square\square \\ \hline 5 \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square \\ \hline 3 \\ \hline \end{array} \quad (3)$$

$$\square = \begin{array}{|c|} \hline \square\square \\ \hline 2 \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square\square\square \\ \hline 6 \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline 1 \\ \hline \end{array} \quad (4)$$

$$\square = \begin{array}{|c|} \hline \square \\ \hline 1 \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square \\ \hline 2 \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square\square \\ \hline 5 \\ \hline \end{array} \quad (5)$$

$$\square = \begin{array}{|c|} \hline \square \\ \hline 1 \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline 1 \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square\square\square \\ \hline 6 \\ \hline \end{array} \quad (6)$$

السؤال دعونا نكتب العدد المُنتطبق داخل 

$$\boxed{\phantom{000}} = \begin{array}{|c|} \hline \square\square\square\square \\ \hline ٤ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square \\ \hline ٢ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square \\ \hline ٣ \\ \hline \end{array} \quad (٧)$$


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$$\boxed{\phantom{000}} = \begin{array}{|c|} \hline \square\square \\ \hline ٢ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square\square \\ \hline ٥ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square \\ \hline ٢ \\ \hline \end{array} \quad (٨)$$


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$$\boxed{\phantom{000}} = \begin{array}{|c|} \hline \square\square\square \\ \hline ٣ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square \\ \hline ٣ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square \\ \hline ٣ \\ \hline \end{array} \quad (٩)$$


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$$\boxed{\phantom{000}} = \begin{array}{|c|} \hline \square\square\square\square \\ \hline ٥ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square \\ \hline ٣ \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} \quad (١٠)$$


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$$\boxed{\phantom{000}} = \begin{array}{|c|} \hline \square\square \\ \hline ٢ \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square \\ \hline ٤ \\ \hline \end{array} \quad (١١)$$


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$$\boxed{\phantom{000}} = \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square \\ \hline ٣ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square \\ \hline ٣ \\ \hline \end{array} \quad (١٢)$$


---

$$\boxed{\phantom{000}} = \begin{array}{|c|} \hline \square\square \\ \hline ٢ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square\square \\ \hline ٤ \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} \quad (١٣)$$


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$$\boxed{\phantom{000}} = \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square\square\square \\ \hline ٧ \\ \hline \end{array} \quad (١٤)$$

السؤال دعونا نكتب العدد المنطبق داخل 

$$\boxed{\phantom{00}} = \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square \\ \hline ٤ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square\square \\ \hline ٥ \\ \hline \end{array} \quad (١٥)$$


---

$$\boxed{\phantom{00}} = \begin{array}{|c|} \hline \square\square \\ \hline ٢ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square \\ \hline ٢ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square \\ \hline ٢ \\ \hline \end{array} \quad (١٦)$$


---

$$\boxed{\phantom{00}} = \begin{array}{|c|} \hline \square\square\square\square \\ \hline ٥ \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} \quad (١٧)$$


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$$\boxed{\phantom{00}} = \begin{array}{|c|} \hline \square\square\square\square \\ \hline ٧ \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square \\ \hline ٢ \\ \hline \end{array} \quad (١٨)$$


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$$\boxed{\phantom{00}} = \begin{array}{|c|} \hline \square\square\square\square \\ \hline ٤ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square \\ \hline ٣ \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} \quad (١٩)$$


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$$\boxed{\phantom{00}} = \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square \\ \hline ٣ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square \\ \hline ٢ \\ \hline \end{array} \quad (٢٠)$$


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$$\boxed{\phantom{00}} = \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square\square \\ \hline ٦ \\ \hline \end{array} \quad (٢١)$$


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$$\boxed{\phantom{00}} = \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline ١ \\ \hline \end{array} + \begin{array}{|c|} \hline \square\square\square\square \\ \hline ٨ \\ \hline \end{array} \quad (٢٢)$$



جيدا!



$$\boxed{9} = \boxed{4} + \boxed{3} + \boxed{2}$$

مثال دعونا نكتب العدد المُنتطبق داخل

السؤال دعونا نكتب العدد المُنتطبق داخل

$$\boxed{\phantom{0}} = \boxed{1} + \boxed{1} + \boxed{7}^{(2)} \quad \boxed{\phantom{0}} = \boxed{5} + \boxed{1} + \boxed{3}^{(1)}$$

$$\boxed{\phantom{0}} = \boxed{1} + \boxed{2} + \boxed{6}^{(4)} \quad \boxed{\phantom{0}} = \boxed{2} + \boxed{2} + \boxed{4}^{(3)}$$

$$\boxed{\phantom{0}} = \boxed{2} + \boxed{3} + \boxed{2}^{(6)} \quad \boxed{\phantom{0}} = \boxed{4} + \boxed{1} + \boxed{5}^{(5)}$$

$$\boxed{\phantom{0}} = \boxed{1} + \boxed{5} + \boxed{3}^{(8)} \quad \boxed{\phantom{0}} = \boxed{4} + \boxed{1} + \boxed{3}^{(7)}$$

$$\boxed{\phantom{0}} = \boxed{2} + \boxed{1} + \boxed{5}^{(10)} \quad \boxed{\phantom{0}} = \boxed{3} + \boxed{4} + \boxed{2}^{(9)}$$

$$\boxed{\phantom{0}} = \boxed{3} + \boxed{2} + \boxed{3}^{(12)} \quad \boxed{\phantom{0}} = \boxed{4} + \boxed{5} + \boxed{1}^{(11)}$$

$$\boxed{\phantom{0}} = \boxed{2} + \boxed{1} + \boxed{5}^{(14)} \quad \boxed{\phantom{0}} = \boxed{3} + \boxed{1} + \boxed{2}^{(13)}$$

$$\boxed{\phantom{0}} = \boxed{5} + \boxed{4} + \boxed{1}^{(16)} \quad \boxed{\phantom{0}} = \boxed{3} + \boxed{2} + \boxed{1}^{(15)}$$

$$\boxed{\phantom{0}} = \boxed{1} + \boxed{4} + \boxed{2}^{(18)} \quad \boxed{\phantom{0}} = \boxed{2} + \boxed{3} + \boxed{4}^{(17)}$$