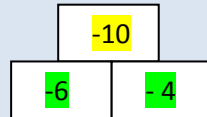


“Stepping up” Activity on Addition, Subtraction, Multiplication and Division of Positive and Negative Numbers. KS3 Non-Calculator

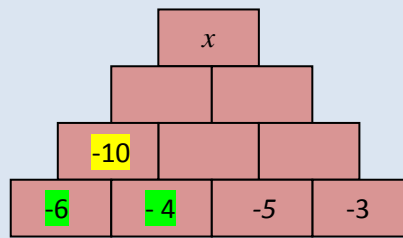
1. In the diagram shown, the number, **-10**, is obtained by adding the two numbers directly below (-6 and -4) as shown below.

$$(-6) + (-4) = -10$$

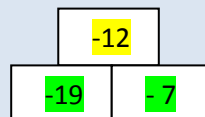


The other numbers in the top three rows can also be obtained in the same way.

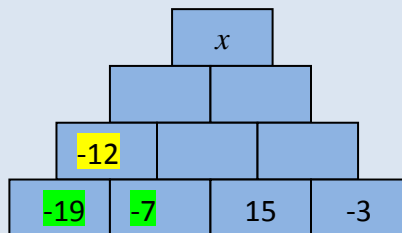
Find the value of x .



2. In the diagram shown, the number, **-12**, is obtained by subtraction, using the two numbers directly below with the second (-7) **being subtracted from** the first (-19). Hence, $-19 - (-7) = -19 + 7 = -12$, as show below.

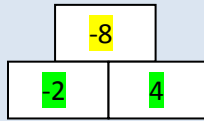


The other numbers in the top three rows can also be obtained in the same way. Find the value of x .



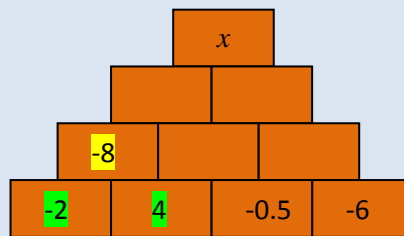
3. In the diagram shown, the number, **-8**, is obtained by multiplying the two numbers directly below (-2 and 4), as shown below.

$$(-2)(4) = -8$$



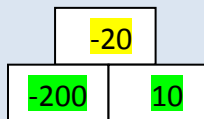
The other numbers in the top three rows can also be obtained in the same way.

Find the value of x .



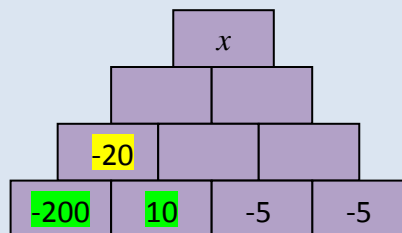
4. In the diagram shown, the number, **-20**, is obtained by dividing the first number below it by the second number as shown below.

$$(-200) \div (10) = -20$$



The other numbers in the top three rows can also be obtained in the same way.

Find the value of x .



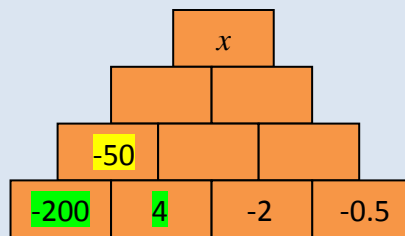
5. In the diagram shown, the number, -50 , is obtained by dividing the first number below it by the second number as shown below.

$$(-200) \div (4) = -50$$



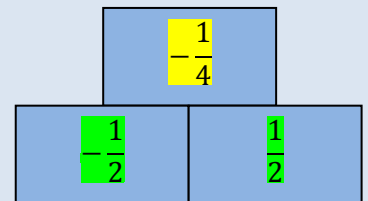
The other numbers in the top three rows can also be obtained in the same way.

Find the value of x .

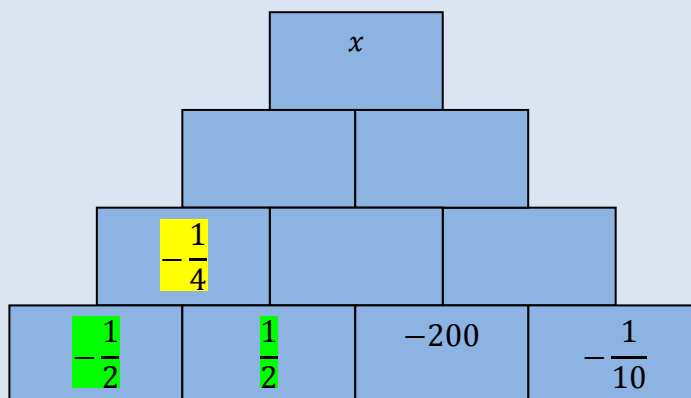


6. In the diagram shown, the number, $-\frac{1}{4}$, is obtained by multiplying the two numbers directly below as shown.

$$-\frac{1}{2} \times \frac{1}{2} = -\frac{1}{4}$$



The other numbers in the top three rows can also be obtained in the same way. Find the value of x .



ANSWERS:

1. $x = -36$

2. $x = 50$

3. $x = -96$

4. $x = -20$

5. $x = -50$

6. $x = -5$

If you find this useful, please leave a comment.

Answers need checking, please.

Thank you.