

## Multiplication (use Distributive Property)

1. Match the equal expressions.

$$(5 \times 4) + (3 \times 4)$$

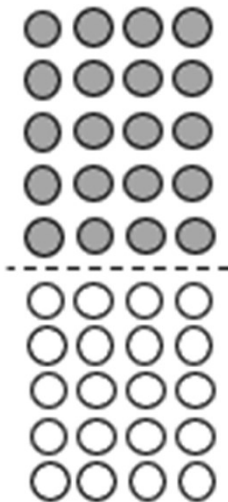
$$(5 \times 4) + (1 \times 4)$$

$$(5 \times 4) + (4 \times 4)$$

$$(5 \times 4) + (2 \times 4)$$



2. Nolan draws the array below to find the answer to the multiplication expression  $10 \times 4$ . He says, "10  $\times$  4 is just double 5  $\times$  4." Explain Nolan's strategy.



## Multiplication (use Distributive Property)

Match the equal expressions.

The image shows four clouds at the top, each containing a sum of products:  $(5 \times 4) + (3 \times 4)$ ,  $(5 \times 4) + (1 \times 4)$ ,  $(5 \times 4) + (4 \times 4)$ , and  $(5 \times 4) + (2 \times 4)$ . Below the clouds are four hot air balloons, each with a multiplication expression and a numerical answer:  $9 \times 4 = 36$ ,  $8 \times 4 = 32$ ,  $6 \times 4 = 24$ , and  $7 \times 4 = 28$ . Lines connect the clouds to the balloons: the first cloud connects to the second balloon, the second cloud to the first balloon, the third cloud to the third balloon, and the fourth cloud to the fourth balloon.

Nolan draws the array below to find the answer to the multiplication expression  $10 \times 4$ . He says, " $10 \times 4$  is just double  $5 \times 4$ !" Explain Nolan's strategy.

The array consists of 10 rows of 4 circles each. A dashed horizontal line is drawn between the 5th and 6th rows. To the right of the top 5 rows, the equation  $5 \times 4 = 20$  is written. To the right of the bottom 5 rows, the equation  $5 \times 4 = 20$  is written. A large right-facing curly bracket spans both equations, with the equation  $20 + 20 = 40$  written next to it.

$5 \times 4 = 20$  and  $20 + 20 = 40$ .  
If I know  $5 \times 4 = 20$ ,  
then I can double  
the answer and I  
will know  $10 \times 4 = 40$   
because 10 is the  
double of 5.