THE DISTRIBUTIVE PROPERTY
OF MULTIPLICATION

THE DISTRIBUTIVE PROPERTY OF MULTIPLICATION ALLOWS US TO DISTRIBUTE OR GIVE MULTIPLICATION TO ADDITION OR SUBTRACTION. IT MAKES NUMBERS EASIER TO WORK WITH AND ALLOWS US TO BREAK VARIABLES AND NUMBERS INTO PARTS.

HELPFUL EXAMPLE

4×72 $\Rightarrow$ $4 \times 72 = 4 \times (70 + 2)$

4 x 72 CAN BE CHANGED TO 4 x (70 + 2), BECAUSE 72 = (70 + 2).

$4 \times (70 + 2)$ $\Rightarrow$ $4 \times (70 + 2)$ $\Rightarrow$ $(4 \times 70) + (4 \times 2)$ $(280) + (8) = 288$

BY CHANGING THE 72 TO (70 + 2) WE CAN SOLVE THIS PROBLEM IN OUR HEAD.

USING THE DISTRIBUTIVE PROPERTY WE CAN SEPARATE THE 70 AND 2 AND MULTIPLY.

SEE HOW WE DISTRIBUTE THE 4 TO THE 70 AND 2?

NOW THE MULTIPLICATION IS EASIER AND CAN BE DONE IN OUR HEAD. 280 + 8 = 288, SO 4 x 72 = 288.

Now you turn. Use the Distributive Property to solve the problems below.

1. $7 \times 65 = 7 \times (60 + 5)$
    $= (7 \times 60) + (7 \times 5)$
    $= (420) + (35)$
    $= 455$

2. $8 \times 34 = \boxed{} \times \left(\boxed{} + \boxed{} \right)$
    272

3. 4×89
    256

4. 3×57
    171

5. 6×46
    276

6. 9×24
    216

7. 11×32
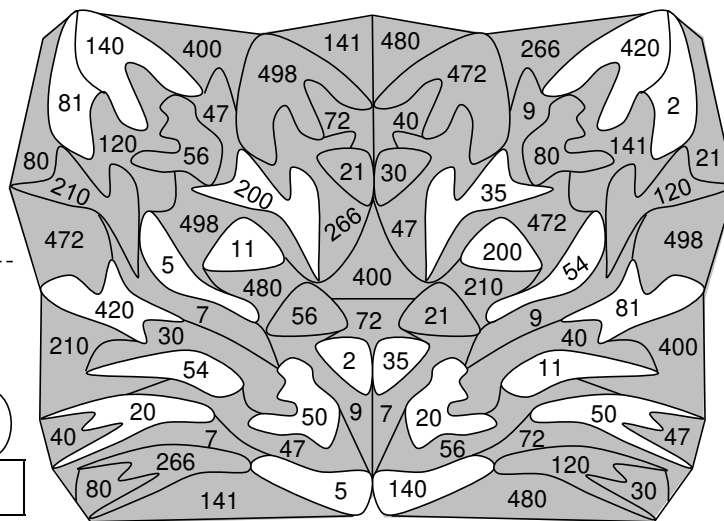   **352**

7. 5×73
    365

9. 12×21
    252

Fill in the empty boxes, find the answers, and shade.

* 6×83
$= 6 \times \left(\boxed{80} + 3 \right)$
$= \left(6 \times 80 \right) + \left(6 \times 3 \right)$
$= \boxed{480} + 18$
$= \boxed{498}$

* $3 \times \boxed{47}$
$= 3 \times \left(40 + 7 \right)$
$= \left(3 \times \boxed{40} \right) + \left(3 \times 7 \right)$
$= \boxed{120} + \boxed{21}$
$= \boxed{141}$

* 8×59
$= 8 \times \left(50 + \boxed{9} \right)$
$= \left(8 \times 50 \right) + \left(8 \times 9 \right)$
$= \boxed{400} + \boxed{72}$
$= \boxed{472}$

* $\boxed{7} \times 38$
$= 7 \times \left(\boxed{30} + 8 \right)$
$= \left(7 \times 30 \right) + \left(7 \times 8 \right)$
$= \boxed{210} + \boxed{56}$
$= \boxed{266}$