

Break Apart Arrays

Name: _____

Grade 3 · Split an array into two facts you know, then add the parts

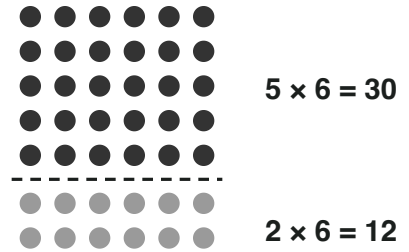
How it works

Need 7×6 ? Split the 7 rows into 5 rows and 2 rows: two facts you know.

$5 \times 6 = 30$ and $2 \times 6 = 12$. Add the parts: $30 + 12 = 42$.

So $7 \times 6 = 42$. This is the **distributive property**:

$7 \times 6 = (5 \times 6) + (2 \times 6)$.



A. Each array is split into two facts you know. Fill in each fact, then the whole product.

1.

$5 \times 8 = \underline{\hspace{2cm}}$

$2 \times 8 = \underline{\hspace{2cm}}$

$7 \times 8 = \underline{\hspace{2cm}}$

2.

$5 \times 9 = \underline{\hspace{2cm}}$

$1 \times 9 = \underline{\hspace{2cm}}$

$6 \times 9 = \underline{\hspace{2cm}}$

3.

$4 \times 6 = \underline{\hspace{2cm}}$

$4 \times 6 = \underline{\hspace{2cm}}$

$8 \times 6 = \underline{\hspace{2cm}}$

4.

$5 \times 4 = \underline{\hspace{2cm}}$

$4 \times 4 = \underline{\hspace{2cm}}$

$9 \times 4 = \underline{\hspace{2cm}}$

5.

$3 \times 7 = \underline{\hspace{2cm}}$

$3 \times 7 = \underline{\hspace{2cm}}$

$6 \times 7 = \underline{\hspace{2cm}}$

6.

$5 \times 9 = \underline{\hspace{2cm}}$

$2 \times 9 = \underline{\hspace{2cm}}$

$7 \times 9 = \underline{\hspace{2cm}}$

B. Draw a line to split each array into two facts you know. Then find the product.

7.

$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$

$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$

$8 \times 7 = \underline{\hspace{2cm}}$

8.

$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$

$\underline{\hspace{1cm}} \times \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$

$9 \times 6 = \underline{\hspace{2cm}}$

Break Apart Arrays (Answer Key)

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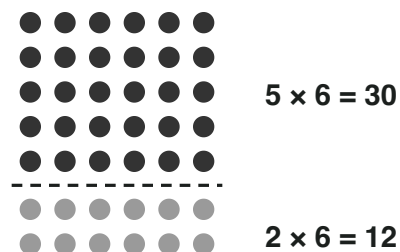
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A. Each array is split into two facts you know. Fill in each fact, then the whole product.

1. $5 \times 8 = \underline{40}$
 $2 \times 8 = \underline{16}$
 $7 \times 8 = \underline{56}$

2. $5 \times 9 = \underline{45}$
 $1 \times 9 = \underline{9}$
 $6 \times 9 = \underline{54}$

3. $4 \times 6 = \underline{24}$
 $4 \times 6 = \underline{24}$
 $8 \times 6 = \underline{48}$

4. $5 \times 4 = \underline{20}$
 $4 \times 4 = \underline{16}$
 $9 \times 4 = \underline{36}$

5. $3 \times 7 = \underline{21}$
 $3 \times 7 = \underline{21}$
 $6 \times 7 = \underline{42}$

6. $5 \times 9 = \underline{45}$
 $2 \times 9 = \underline{18}$
 $7 \times 9 = \underline{63}$

B. Draw a line to split each array into two facts you know. Then find the product.

7. $5 \times 7 = \underline{35}$
 $3 \times 7 = \underline{21}$
 $8 \times 7 = \underline{56}$

One way. Other splits are right too.

8. $5 \times 6 = \underline{30}$
 $4 \times 6 = \underline{24}$
 $9 \times 6 = \underline{54}$

One way. Other splits are right too.