

Break Apart Facts

Name: _____

Grade 3 · The distributive property: split a factor, multiply the parts, add

Break apart a factor into two easier numbers. $8 \times 3 = (5 \times 3) + (3 \times 3) = 15 + 9 = 24$

A. Fill in the blanks.

1. $8 \times 7 = (5 \times 7) + (3 \times 7) =$ _____ + _____ = _____
2. $6 \times 8 = (5 \times 8) + (1 \times 8) =$ _____ + _____ = _____
3. $9 \times 7 = (5 \times 7) + (4 \times 7) =$ _____ + _____ = _____
4. $7 \times 4 = (5 \times 4) + (2 \times 4) =$ _____ + _____ = _____
5. $4 \times 9 = (2 \times 9) + (2 \times 9) =$ _____ + _____ = _____
6. $8 \times 9 = (4 \times 9) + (4 \times 9) =$ _____ + _____ = _____
7. $3 \times 9 = (2 \times 9) + (1 \times 9) =$ _____ + _____ = _____
8. $6 \times 9 = (5 \times 9) + (1 \times 9) =$ _____ + _____ = _____

B. Write the missing number.

9. $6 \times 9 = (6 \times 5) + (6 \times \underline{\quad})$
10. $7 \times 8 = (7 \times 2) + (7 \times \underline{\quad})$
11. $8 \times 6 = (8 \times 3) + (8 \times \underline{\quad})$
12. $9 \times 7 = (9 \times 5) + (9 \times \underline{\quad})$
13. $4 \times 8 = (4 \times 6) + (4 \times \underline{\quad})$
14. $7 \times 7 = (7 \times 2) + (7 \times \underline{\quad})$

C. Break apart each fact your own way. Then find the product.

15. 7×8

$(\underline{\quad} \times \underline{\quad}) + (\underline{\quad} \times \underline{\quad}) = \underline{\quad}$

16. 6×7

$(\underline{\quad} \times \underline{\quad}) + (\underline{\quad} \times \underline{\quad}) = \underline{\quad}$

17. 9×8

$(\underline{\quad} \times \underline{\quad}) + (\underline{\quad} \times \underline{\quad}) = \underline{\quad}$

18. 8×4

$(\underline{\quad} \times \underline{\quad}) + (\underline{\quad} \times \underline{\quad}) = \underline{\quad}$

Break Apart Facts (Answer Key)

Grade 3 · The distributive property: split a factor, multiply the parts, add

Break apart a factor into two easier numbers. $8 \times 3 = (5 \times 3) + (3 \times 3) = 15 + 9 = 24$

A. Fill in the blanks.

1. $8 \times 7 = (5 \times 7) + (3 \times 7) =$ 35 + 21 = 56
2. $6 \times 8 = (5 \times 8) + (1 \times 8) =$ 40 + 8 = 48
3. $9 \times 7 = (5 \times 7) + (4 \times 7) =$ 35 + 28 = 63
4. $7 \times 4 = (5 \times 4) + (2 \times 4) =$ 20 + 8 = 28
5. $4 \times 9 = (2 \times 9) + (2 \times 9) =$ 18 + 18 = 36
6. $8 \times 9 = (4 \times 9) + (4 \times 9) =$ 36 + 36 = 72
7. $3 \times 9 = (2 \times 9) + (1 \times 9) =$ 18 + 9 = 27
8. $6 \times 9 = (5 \times 9) + (1 \times 9) =$ 45 + 9 = 54

B. Write the missing number.

9. $6 \times 9 = (6 \times 5) + (6 \times \underline{4})$
10. $7 \times 8 = (7 \times 2) + (7 \times \underline{6})$
11. $8 \times 6 = (8 \times 3) + (8 \times \underline{3})$
12. $9 \times 7 = (9 \times 5) + (9 \times \underline{2})$
13. $4 \times 8 = (4 \times 6) + (4 \times \underline{2})$
14. $7 \times 7 = (7 \times 2) + (7 \times \underline{5})$

C. Break apart each fact your own way. Then find the product.

15. 7×8

One way

$(\underline{5} \times \underline{8}) + (\underline{2} \times \underline{8}) = \underline{56}$

16. 6×7

One way

$(\underline{5} \times \underline{7}) + (\underline{1} \times \underline{7}) = \underline{42}$

17. 9×8

One way

$(\underline{5} \times \underline{8}) + (\underline{4} \times \underline{8}) = \underline{72}$

18. 8×4

One way

$(\underline{5} \times \underline{4}) + (\underline{3} \times \underline{4}) = \underline{32}$

In C, any split is right if the parts add to the product.