

Multiplication Strategies

Multiply by 3: make 2 groups, then add 1 more group.

$$\begin{array}{l} 2 \times 3 \\ 1 \times 3 \end{array} \left[\begin{array}{c} \bullet \bullet \bullet \\ \bullet \bullet \bullet \\ \hline \bullet \bullet \bullet \end{array} \right]$$

$$3 \times 3 = 9$$

3 groups of 3 is 2 groups and 1 more group.

$$2 \times 3 = \underline{6}$$

$$\underline{6} + \underline{3} = \underline{9}$$

Example

Use the strategy. Fill in the steps.

1. 3×6



$$\begin{array}{l} 2 \times 6 = \underline{\quad} \\ \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

2. 3×8



$$\begin{array}{l} 2 \times 8 = \underline{\quad} \\ \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

3. 3×4



$$\begin{array}{l} 2 \times 4 = \underline{\quad} \\ \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

4. 3×9



$$\begin{array}{l} 2 \times 9 = \underline{\quad} \\ \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

Multiply.

5. $3 \times 2 = \underline{\quad}$

6. $3 \times 5 = \underline{\quad}$

7. $5 \times 3 = \underline{\quad}$

8. $3 \times 10 = \underline{\quad}$

9. $3 \times 7 = \underline{\quad}$

10. $10 \times 3 = \underline{\quad}$

Divide. Write the times fact too.

11. $24 \div 3 = \underline{\quad}$ $3 \times \underline{\quad} = 24$

12. $18 \div 3 = \underline{\quad}$ $3 \times \underline{\quad} = 18$

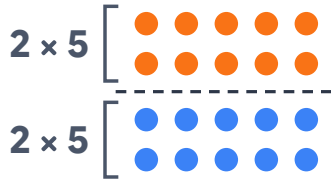
13. $15 \div 3 = \underline{\quad}$ $3 \times \underline{\quad} = 15$

14. $9 \div 3 = \underline{\quad}$ $3 \times \underline{\quad} = 9$

15. $6 \div 3 = \underline{\quad}$ $3 \times \underline{\quad} = 6$

Multiplication Strategies

Multiply by 4: double the 2s fact.



$$4 \times 5 = 20$$

4 groups of 5 is 2 groups of 5, two times.

$$2 \times 5 = 10$$

$$10 + 10 = 20$$

Example

Use the strategy. Fill in the steps.

1. 4×3



$$\begin{array}{l} 2 \times 3 = \underline{\quad} \\ \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

2. 4×4



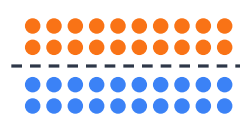
$$\begin{array}{l} 2 \times 4 = \underline{\quad} \\ \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

3. 4×2



$$\begin{array}{l} 2 \times 2 = \underline{\quad} \\ \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

4. 4×10



$$\begin{array}{l} 2 \times 10 = \underline{\quad} \\ \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

Multiply.

5. $4 \times 6 = \underline{\quad}$

6. $4 \times 7 = \underline{\quad}$

7. $2 \times 4 = \underline{\quad}$

8. $4 \times 8 = \underline{\quad}$

9. $4 \times 9 = \underline{\quad}$

10. $10 \times 4 = \underline{\quad}$

Divide. Write the times fact too.

11. $32 \div 4 = \underline{\quad}$ $4 \times \underline{\quad} = 32$

12. $12 \div 4 = \underline{\quad}$ $4 \times \underline{\quad} = 12$

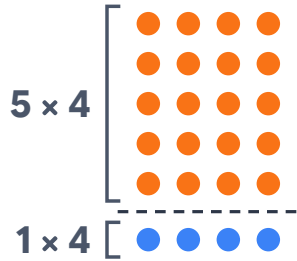
13. $20 \div 4 = \underline{\quad}$ $4 \times \underline{\quad} = 20$

14. $40 \div 4 = \underline{\quad}$ $4 \times \underline{\quad} = 40$

15. $8 \div 4 = \underline{\quad}$ $4 \times \underline{\quad} = 8$

Multiplication Strategies

Multiply by 6: make 5 groups, then add 1 more group.



$$6 \times 4 = 24$$

6 groups of 4 is 5 groups and 1 more group.

$$5 \times 4 = 20$$

$$20 + 4 = 24$$

Example

Use the strategy. Fill in the steps.

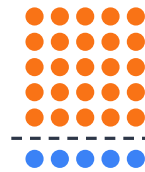
1. 6×3



$$5 \times 3 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

2. 6×5



$$5 \times 5 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

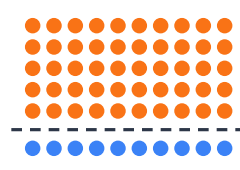
3. 6×2



$$5 \times 2 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

4. 6×10



$$5 \times 10 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

Multiply.

5. $6 \times 6 = \underline{\quad}$

6. $6 \times 7 = \underline{\quad}$

7. $5 \times 6 = \underline{\quad}$

8. $6 \times 8 = \underline{\quad}$

9. $6 \times 9 = \underline{\quad}$

10. $2 \times 6 = \underline{\quad}$

Divide. Write the times fact too.

11. $42 \div 6 = \underline{\quad}$ $6 \times \underline{\quad} = 42$

12. $24 \div 6 = \underline{\quad}$ $6 \times \underline{\quad} = 24$

13. $18 \div 6 = \underline{\quad}$ $6 \times \underline{\quad} = 18$

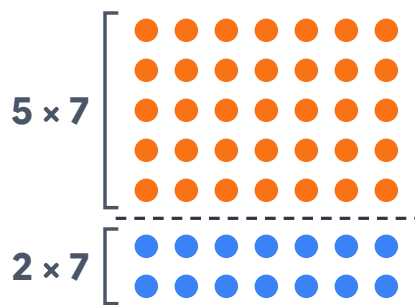
14. $54 \div 6 = \underline{\quad}$ $6 \times \underline{\quad} = 54$

15. $36 \div 6 = \underline{\quad}$ $6 \times \underline{\quad} = 36$

16. $30 \div 6 = \underline{\quad}$ $6 \times \underline{\quad} = 30$

Multiplication Strategies

Multiply by 7: break 7 apart into 5 and 2.



$$7 \times 7 = 49$$

7 groups of 7 is 5 groups and 2 more groups.

$$5 \times 7 = 35$$

$$2 \times 7 = 14$$

$$35 + 14 = 49$$

Example

Use the strategy. Fill in the steps.

1. 7×6



$$5 \times 6 = \underline{\quad}$$

$$2 \times 6 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

2. 7×3

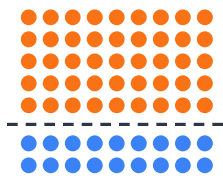


$$5 \times 3 = \underline{\quad}$$

$$2 \times 3 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

3. 7×9



$$5 \times 9 = \underline{\quad}$$

$$2 \times 9 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

4. 7×4



$$5 \times 4 = \underline{\quad}$$

$$2 \times 4 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

Multiply.

5. $7 \times 2 = \underline{\quad}$

6. $7 \times 5 = \underline{\quad}$

7. $10 \times 7 = \underline{\quad}$

8. $7 \times 8 = \underline{\quad}$

9. $7 \times 10 = \underline{\quad}$

10. $5 \times 7 = \underline{\quad}$

Divide. Write the times fact too.

11. $56 \div 7 = \underline{\quad}$ $7 \times \underline{\quad} = 56$

12. $21 \div 7 = \underline{\quad}$ $7 \times \underline{\quad} = 21$

13. $28 \div 7 = \underline{\quad}$ $7 \times \underline{\quad} = 28$

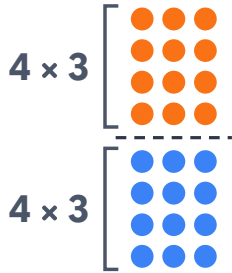
14. $49 \div 7 = \underline{\quad}$ $7 \times \underline{\quad} = 49$

15. $14 \div 7 = \underline{\quad}$ $7 \times \underline{\quad} = 14$

16. $70 \div 7 = \underline{\quad}$ $7 \times \underline{\quad} = 70$

Multiplication Strategies

Multiply by 8: double the 4s fact.



$$8 \times 3 = 24$$

8 groups of 3 is 4 groups of 3, two times.

$$4 \times 3 = 12$$

$$12 + 12 = 24$$

Example

Use the strategy. Fill in the steps.

1. 8×4



$$4 \times 4 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

2. 8×5



$$4 \times 5 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

3. 8×2



$$4 \times 2 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

4. 8×10



$$4 \times 10 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

Multiply.

5. $8 \times 6 = \underline{\quad}$

6. $8 \times 7 = \underline{\quad}$

7. $2 \times 8 = \underline{\quad}$

8. $8 \times 8 = \underline{\quad}$

9. $8 \times 9 = \underline{\quad}$

10. $10 \times 8 = \underline{\quad}$

Divide. Write the times fact too.

11. $48 \div 8 = \underline{\quad}$ $8 \times \underline{\quad} = 48$

12. $56 \div 8 = \underline{\quad}$ $8 \times \underline{\quad} = 56$

13. $24 \div 8 = \underline{\quad}$ $8 \times \underline{\quad} = 24$

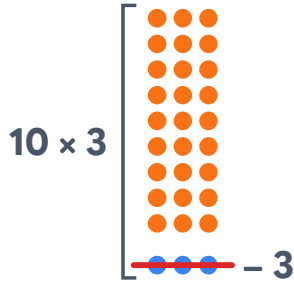
14. $40 \div 8 = \underline{\quad}$ $8 \times \underline{\quad} = 40$

15. $32 \div 8 = \underline{\quad}$ $8 \times \underline{\quad} = 32$

16. $64 \div 8 = \underline{\quad}$ $8 \times \underline{\quad} = 64$

Multiplication Strategies

Multiply by 9: make 10 groups, then take away 1 group.



$$9 \times 3 = 27$$

9 groups of 3 is 10 groups take away 1 group.

$$10 \times 3 = 30$$

$$30 - 3 = 27$$

Example

Use the strategy. Fill in the steps.

1. 9×4



$$10 \times 4 = \underline{\quad}$$

$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

2. 9×5



$$10 \times 5 = \underline{\quad}$$

$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

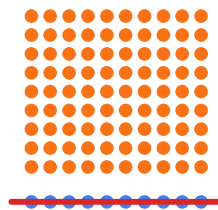
3. 9×2



$$10 \times 2 = \underline{\quad}$$

$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

4. 9×10



$$10 \times 10 = \underline{\quad}$$

$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

Count by 9s. Then look at the digits.

9 18 36
 63 90

5. The tens digit goes up by
6. The ones digit goes down by
7. The digits add up to

Divide. Write the times fact too.

8. $54 \div 9 = \underline{\quad}$ $9 \times \underline{\quad} = 54$
9. $45 \div 9 = \underline{\quad}$ $9 \times \underline{\quad} = 45$
10. $63 \div 9 = \underline{\quad}$ $9 \times \underline{\quad} = 63$
11. $27 \div 9 = \underline{\quad}$ $9 \times \underline{\quad} = 27$
12. $72 \div 9 = \underline{\quad}$ $9 \times \underline{\quad} = 72$
13. $81 \div 9 = \underline{\quad}$ $9 \times \underline{\quad} = 81$

Multiplication Strategies

Multiply by 3: make 2 groups, then add 1 more group.

$$\begin{array}{r} 2 \times 3 \\ 1 \times 3 \\ \hline \end{array} \left[\begin{array}{c} \bullet \bullet \bullet \\ \bullet \bullet \bullet \\ \hline \circ \circ \circ \end{array} \right]$$

$$3 \times 3 = 9$$

3 groups of 3 is 2 groups and 1 more group.

$$2 \times 3 = \underline{6}$$

$$\underline{6} + \underline{3} = \underline{9}$$

Example

Use the strategy. Fill in the steps.

1. 3×6



$$\begin{array}{r} 2 \times 6 = \underline{\quad} \\ \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

2. 3×8



$$\begin{array}{r} 2 \times 8 = \underline{\quad} \\ \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

3. 3×4



$$\begin{array}{r} 2 \times 4 = \underline{\quad} \\ \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

4. 3×9



$$\begin{array}{r} 2 \times 9 = \underline{\quad} \\ \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

Multiply.

5. $3 \times 2 = \underline{\quad}$

6. $3 \times 5 = \underline{\quad}$

7. $5 \times 3 = \underline{\quad}$

8. $3 \times 10 = \underline{\quad}$

9. $3 \times 7 = \underline{\quad}$

10. $10 \times 3 = \underline{\quad}$

Divide. Write the times fact too.

11. $24 \div 3 = \underline{\quad}$ $3 \times \underline{\quad} = 24$

12. $18 \div 3 = \underline{\quad}$ $3 \times \underline{\quad} = 18$

13. $15 \div 3 = \underline{\quad}$ $3 \times \underline{\quad} = 15$

14. $9 \div 3 = \underline{\quad}$ $3 \times \underline{\quad} = 9$

15. $6 \div 3 = \underline{\quad}$ $3 \times \underline{\quad} = 6$

Multiplication Strategies

Multiply by 4: double the 2s fact.

$$\begin{array}{l} 2 \times 5 \left[\begin{array}{c} \bullet \bullet \bullet \bullet \bullet \\ \bullet \bullet \bullet \bullet \bullet \end{array} \right. \\ 2 \times 5 \left[\begin{array}{c} \circ \circ \circ \circ \circ \\ \circ \circ \circ \circ \circ \end{array} \right. \end{array}$$

$$4 \times 5 = 20$$

4 groups of 5 is 2 groups of 5, two times.

$$2 \times 5 = 10$$

$$10 + 10 = 20$$

Example

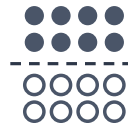
Use the strategy. Fill in the steps.

1. 4×3



$$\begin{array}{l} 2 \times 3 = \underline{\quad} \\ \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

2. 4×4



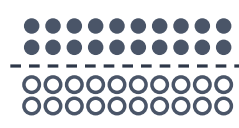
$$\begin{array}{l} 2 \times 4 = \underline{\quad} \\ \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

3. 4×2



$$\begin{array}{l} 2 \times 2 = \underline{\quad} \\ \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

4. 4×10



$$\begin{array}{l} 2 \times 10 = \underline{\quad} \\ \underline{\quad} + \underline{\quad} = \underline{\quad} \end{array}$$

Multiply.

5. $4 \times 6 = \underline{\quad}$

6. $4 \times 7 = \underline{\quad}$

7. $2 \times 4 = \underline{\quad}$

8. $4 \times 8 = \underline{\quad}$

9. $4 \times 9 = \underline{\quad}$

10. $10 \times 4 = \underline{\quad}$

Divide. Write the times fact too.

11. $32 \div 4 = \underline{\quad}$ $4 \times \underline{\quad} = 32$

12. $12 \div 4 = \underline{\quad}$ $4 \times \underline{\quad} = 12$

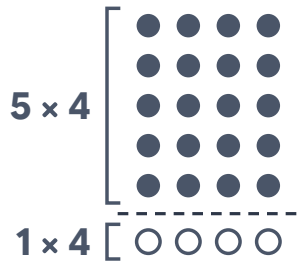
13. $20 \div 4 = \underline{\quad}$ $4 \times \underline{\quad} = 20$

14. $40 \div 4 = \underline{\quad}$ $4 \times \underline{\quad} = 40$

15. $8 \div 4 = \underline{\quad}$ $4 \times \underline{\quad} = 8$

Multiplication Strategies

Multiply by 6: make 5 groups, then add 1 more group.



$$6 \times 4 = 24$$

6 groups of 4 is 5 groups and 1 more group.

$$5 \times 4 = 20$$

$$20 + 4 = 24$$

Example

Use the strategy. Fill in the steps.

1. 6×3



$$5 \times 3 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

2. 6×5



$$5 \times 5 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

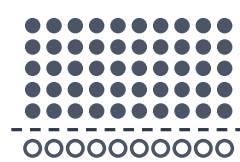
3. 6×2



$$5 \times 2 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

4. 6×10



$$5 \times 10 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

Multiply.

5. $6 \times 6 = \underline{\quad}$

6. $6 \times 7 = \underline{\quad}$

7. $5 \times 6 = \underline{\quad}$

8. $6 \times 8 = \underline{\quad}$

9. $6 \times 9 = \underline{\quad}$

10. $2 \times 6 = \underline{\quad}$

Divide. Write the times fact too.

11. $42 \div 6 = \underline{\quad}$ $6 \times \underline{\quad} = 42$

12. $24 \div 6 = \underline{\quad}$ $6 \times \underline{\quad} = 24$

13. $18 \div 6 = \underline{\quad}$ $6 \times \underline{\quad} = 18$

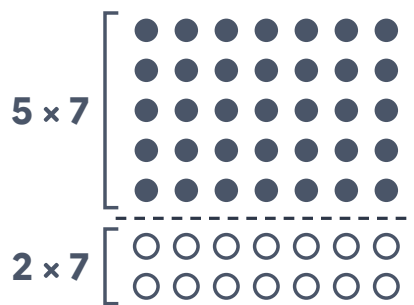
14. $54 \div 6 = \underline{\quad}$ $6 \times \underline{\quad} = 54$

15. $36 \div 6 = \underline{\quad}$ $6 \times \underline{\quad} = 36$

16. $30 \div 6 = \underline{\quad}$ $6 \times \underline{\quad} = 30$

Multiplication Strategies

Multiply by 7: break 7 apart into 5 and 2.



$$7 \times 7 = 49$$

7 groups of 7 is 5 groups and 2 more groups.

$$5 \times 7 = 35$$

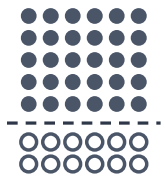
$$2 \times 7 = 14$$

$$35 + 14 = 49$$

Example

Use the strategy. Fill in the steps.

1. 7×6



$$5 \times 6 = \underline{\quad}$$

$$2 \times 6 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

2. 7×3

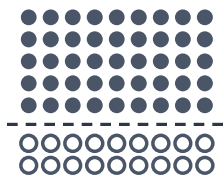


$$5 \times 3 = \underline{\quad}$$

$$2 \times 3 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

3. 7×9



$$5 \times 9 = \underline{\quad}$$

$$2 \times 9 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

4. 7×4



$$5 \times 4 = \underline{\quad}$$

$$2 \times 4 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

Multiply.

5. $7 \times 2 = \underline{\quad}$

6. $7 \times 5 = \underline{\quad}$

7. $10 \times 7 = \underline{\quad}$

8. $7 \times 8 = \underline{\quad}$

9. $7 \times 10 = \underline{\quad}$

10. $5 \times 7 = \underline{\quad}$

Divide. Write the times fact too.

11. $56 \div 7 = \underline{\quad}$ $7 \times \underline{\quad} = 56$

12. $21 \div 7 = \underline{\quad}$ $7 \times \underline{\quad} = 21$

13. $28 \div 7 = \underline{\quad}$ $7 \times \underline{\quad} = 28$

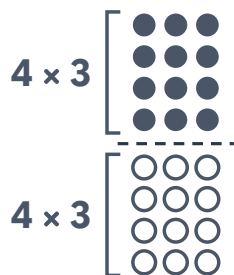
14. $49 \div 7 = \underline{\quad}$ $7 \times \underline{\quad} = 49$

15. $14 \div 7 = \underline{\quad}$ $7 \times \underline{\quad} = 14$

16. $70 \div 7 = \underline{\quad}$ $7 \times \underline{\quad} = 70$

Multiplication Strategies

Multiply by 8: double the 4s fact.



$$8 \times 3 = 24$$

8 groups of 3 is 4 groups of 3, two times.

$$4 \times 3 = 12$$

$$12 + 12 = 24$$

Example

Use the strategy. Fill in the steps.

1. 8×4



$$4 \times 4 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

2. 8×5



$$4 \times 5 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

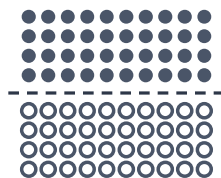
3. 8×2



$$4 \times 2 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

4. 8×10



$$4 \times 10 = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

Multiply.

5. $8 \times 6 = \underline{\quad}$

6. $8 \times 7 = \underline{\quad}$

7. $2 \times 8 = \underline{\quad}$

8. $8 \times 8 = \underline{\quad}$

9. $8 \times 9 = \underline{\quad}$

10. $10 \times 8 = \underline{\quad}$

Divide. Write the times fact too.

11. $48 \div 8 = \underline{\quad}$ $8 \times \underline{\quad} = 48$

12. $56 \div 8 = \underline{\quad}$ $8 \times \underline{\quad} = 56$

13. $24 \div 8 = \underline{\quad}$ $8 \times \underline{\quad} = 24$

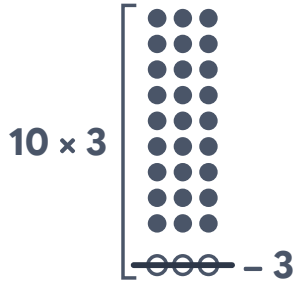
14. $40 \div 8 = \underline{\quad}$ $8 \times \underline{\quad} = 40$

15. $32 \div 8 = \underline{\quad}$ $8 \times \underline{\quad} = 32$

16. $64 \div 8 = \underline{\quad}$ $8 \times \underline{\quad} = 64$

Multiplication Strategies

Multiply by 9: make 10 groups, then take away 1 group.



$$9 \times 3 = 27$$

9 groups of 3 is 10 groups take away 1 group.

$$10 \times 3 = 30$$

$$30 - 3 = 27$$

Example

Use the strategy. Fill in the steps.

1. 9×4



$$10 \times 4 = \underline{\quad}$$

$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

2. 9×5



$$10 \times 5 = \underline{\quad}$$

$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

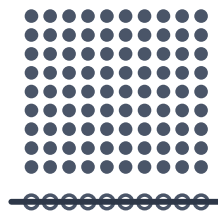
3. 9×2



$$10 \times 2 = \underline{\quad}$$

$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

4. 9×10



$$10 \times 10 = \underline{\quad}$$

$$\underline{\quad} - \underline{\quad} = \underline{\quad}$$

Count by 9s. Then look at the digits.

9 18 36
 63 90

5. The tens digit goes up by
6. The ones digit goes down by
7. The digits add up to

Divide. Write the times fact too.

8. $54 \div 9 = \underline{\quad}$ $9 \times \underline{\quad} = 54$
9. $45 \div 9 = \underline{\quad}$ $9 \times \underline{\quad} = 45$
10. $63 \div 9 = \underline{\quad}$ $9 \times \underline{\quad} = 63$
11. $27 \div 9 = \underline{\quad}$ $9 \times \underline{\quad} = 27$
12. $72 \div 9 = \underline{\quad}$ $9 \times \underline{\quad} = 72$
13. $81 \div 9 = \underline{\quad}$ $9 \times \underline{\quad} = 81$

Multiplication Strategies

Multiply by 3: make 2 groups, then add 1 more group.

$$\begin{array}{r} 2 \times 3 \\ 1 \times 3 \\ \hline \end{array} \left[\begin{array}{c} \bullet \bullet \bullet \\ \bullet \bullet \bullet \\ \hline \circ \circ \circ \end{array} \right]$$

$$3 \times 3 = 9$$

3 groups of 3 is 2 groups and 1 more group.

$$2 \times 3 = \underline{6}$$

$$\underline{6} + \underline{3} = \underline{9}$$

Example

Use the strategy. Fill in the steps.

1. 3×6



$$2 \times 6 = \underline{12}$$

$$\underline{12} + \underline{6} = \underline{18}$$

2. 3×8



$$2 \times 8 = \underline{16}$$

$$\underline{16} + \underline{8} = \underline{24}$$

3. 3×4



$$2 \times 4 = \underline{8}$$

$$\underline{8} + \underline{4} = \underline{12}$$

4. 3×9



$$2 \times 9 = \underline{18}$$

$$\underline{18} + \underline{9} = \underline{27}$$

Multiply.

5. $3 \times 2 = \underline{6}$

6. $3 \times 5 = \underline{15}$

7. $5 \times 3 = \underline{15}$

8. $3 \times 10 = \underline{30}$

9. $3 \times 7 = \underline{21}$

10. $10 \times 3 = \underline{30}$

Divide. Write the times fact too.

11. $24 \div 3 = \underline{8}$ $3 \times \underline{8} = 24$

12. $18 \div 3 = \underline{6}$ $3 \times \underline{6} = 18$

13. $15 \div 3 = \underline{5}$ $3 \times \underline{5} = 15$

14. $9 \div 3 = \underline{3}$ $3 \times \underline{3} = 9$

15. $6 \div 3 = \underline{2}$ $3 \times \underline{2} = 6$

Multiplication Strategies

Multiply by 4: double the 2s fact.

$$\begin{array}{l} 2 \times 5 \left[\begin{array}{c} \bullet \bullet \bullet \bullet \bullet \\ \bullet \bullet \bullet \bullet \bullet \end{array} \right. \\ \hline 2 \times 5 \left[\begin{array}{c} \circ \circ \circ \circ \circ \\ \circ \circ \circ \circ \circ \end{array} \right. \end{array}$$

$$4 \times 5 = 20$$

4 groups of 5 is 2 groups of 5, two times.

$$2 \times 5 = \underline{10}$$

$$\underline{10} + \underline{10} = \underline{20}$$

Example

Use the strategy. Fill in the steps.

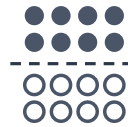
1. 4×3



$$2 \times 3 = \underline{6}$$

$$\underline{6} + \underline{6} = \underline{12}$$

2. 4×4



$$2 \times 4 = \underline{8}$$

$$\underline{8} + \underline{8} = \underline{16}$$

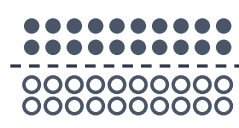
3. 4×2



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

$$\underline{4} + \underline{4} = \underline{8}$$

4. 4×10



$$2 \times 10 = \underline{20}$$

$$\underline{20} + \underline{20} = \underline{40}$$

Multiply.

5. $4 \times 6 = \underline{24}$

6. $4 \times 7 = \underline{28}$

7. $2 \times 4 = \underline{8}$

8. $4 \times 8 = \underline{32}$

9. $4 \times 9 = \underline{36}$

10. $10 \times 4 = \underline{40}$

Divide. Write the times fact too.

11. $32 \div 4 = \underline{8}$ $4 \times \underline{8} = 32$

12. $12 \div 4 = \underline{3}$ $4 \times \underline{3} = 12$

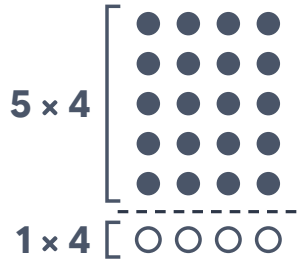
13. $20 \div 4 = \underline{5}$ $4 \times \underline{5} = 20$

14. $40 \div 4 = \underline{10}$ $4 \times \underline{10} = 40$

15. $8 \div 4 = \underline{2}$ $4 \times \underline{2} = 8$

Multiplication Strategies

Multiply by 6: make 5 groups, then add 1 more group.



$$6 \times 4 = 24$$

6 groups of 4 is 5 groups and 1 more group.

$$5 \times 4 = \underline{20}$$

$$\underline{20} + \underline{4} = \underline{24}$$

Example

Use the strategy. Fill in the steps.

1. 6×3



$$5 \times 3 = \underline{15}$$

$$\underline{15} + \underline{3} = \underline{18}$$

2. 6×5



$$5 \times 5 = \underline{25}$$

$$\underline{25} + \underline{5} = \underline{30}$$

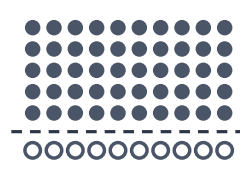
3. 6×2



$$5 \times 2 = \underline{10}$$

$$\underline{10} + \underline{2} = \underline{12}$$

4. 6×10



$$5 \times 10 = \underline{50}$$

$$\underline{50} + \underline{10} = \underline{60}$$

Multiply.

5. $6 \times 6 = \underline{36}$

6. $6 \times 7 = \underline{42}$

7. $5 \times 6 = \underline{30}$

8. $6 \times 8 = \underline{48}$

9. $6 \times 9 = \underline{54}$

10. $2 \times 6 = \underline{12}$

Divide. Write the times fact too.

11. $42 \div 6 = \underline{7}$ $6 \times \underline{7} = 42$

12. $24 \div 6 = \underline{4}$ $6 \times \underline{4} = 24$

13. $18 \div 6 = \underline{3}$ $6 \times \underline{3} = 18$

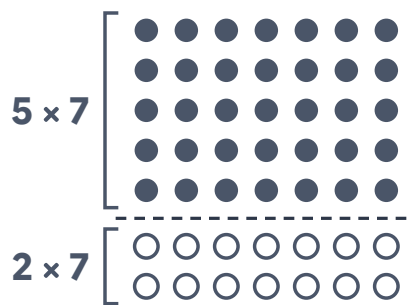
14. $54 \div 6 = \underline{9}$ $6 \times \underline{9} = 54$

15. $36 \div 6 = \underline{6}$ $6 \times \underline{6} = 36$

16. $30 \div 6 = \underline{5}$ $6 \times \underline{5} = 30$

Multiplication Strategies

Multiply by 7: break 7 apart into 5 and 2.



$$7 \times 7 = 49$$

7 groups of 7 is 5 groups and 2 more groups.

$$5 \times 7 = \underline{35}$$

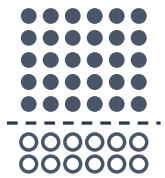
$$2 \times 7 = \underline{14}$$

$$\underline{35} + \underline{14} = \underline{49}$$

Example

Use the strategy. Fill in the steps.

1. 7×6



$$5 \times 6 = \underline{30}$$

$$2 \times 6 = \underline{12}$$

$$\underline{30} + \underline{12} = \underline{42}$$

2. 7×3

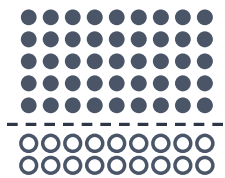


$$5 \times 3 = \underline{15}$$

$$2 \times 3 = \underline{6}$$

$$\underline{15} + \underline{6} = \underline{21}$$

3. 7×9



$$5 \times 9 = \underline{45}$$

$$2 \times 9 = \underline{18}$$

$$\underline{45} + \underline{18} = \underline{63}$$

4. 7×4



$$5 \times 4 = \underline{20}$$

$$2 \times 4 = \underline{8}$$

$$\underline{20} + \underline{8} = \underline{28}$$

Multiply.

5. $7 \times 2 = \underline{14}$

6. $7 \times 5 = \underline{35}$

7. $10 \times 7 = \underline{70}$

8. $7 \times 8 = \underline{56}$

9. $7 \times 10 = \underline{70}$

10. $5 \times 7 = \underline{35}$

Divide. Write the times fact too.

11. $56 \div 7 = \underline{8}$ $7 \times \underline{8} = 56$

12. $21 \div 7 = \underline{3}$ $7 \times \underline{3} = 21$

13. $28 \div 7 = \underline{4}$ $7 \times \underline{4} = 28$

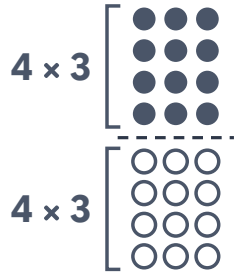
14. $49 \div 7 = \underline{7}$ $7 \times \underline{7} = 49$

15. $14 \div 7 = \underline{2}$ $7 \times \underline{2} = 14$

16. $70 \div 7 = \underline{10}$ $7 \times \underline{10} = 70$

Multiplication Strategies

Multiply by 8: double the 4s fact.



$$8 \times 3 = 24$$

8 groups of 3 is 4 groups of 3, two times.

$$4 \times 3 = 12$$

$$12 + 12 = 24$$

Example

Use the strategy. Fill in the steps.

1. 8×4



$$4 \times 4 = 16$$

$$16 + 16 = 32$$

2. 8×5



$$4 \times 5 = 20$$

$$20 + 20 = 40$$

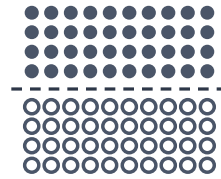
3. 8×2



$$4 \times 2 = 8$$

$$8 + 8 = 16$$

4. 8×10



$$4 \times 10 = 40$$

$$40 + 40 = 80$$

Multiply.

5. $8 \times 6 = 48$

6. $8 \times 7 = 56$

7. $2 \times 8 = 16$

8. $8 \times 8 = 64$

9. $8 \times 9 = 72$

10. $10 \times 8 = 80$

Divide. Write the times fact too.

11. $48 \div 8 = 6$ $8 \times 6 = 48$

12. $56 \div 8 = 7$ $8 \times 7 = 56$

13. $24 \div 8 = 3$ $8 \times 3 = 24$

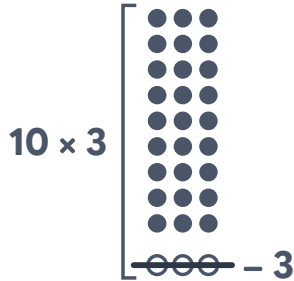
14. $40 \div 8 = 5$ $8 \times 5 = 40$

15. $32 \div 8 = 4$ $8 \times 4 = 32$

16. $64 \div 8 = 8$ $8 \times 8 = 64$

Multiplication Strategies

Multiply by 9: make 10 groups, then take away 1 group.



$$9 \times 3 = 27$$

9 groups of 3 is 10 groups take away 1 group.

$$10 \times 3 = \underline{30}$$

$$\underline{30} - \underline{3} = \underline{27}$$

Example

Use the strategy. Fill in the steps.

1. 9×4



$$10 \times 4 = \underline{40}$$

$$\underline{40} - \underline{4} = \underline{36}$$

2. 9×5



$$10 \times 5 = \underline{50}$$

$$\underline{50} - \underline{5} = \underline{45}$$

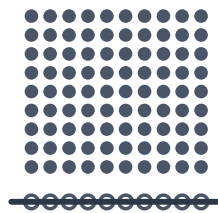
3. 9×2



$$10 \times 2 = \underline{20}$$

$$\underline{20} - \underline{2} = \underline{18}$$

4. 9×10



$$10 \times 10 = \underline{100}$$

$$\underline{100} - \underline{10} = \underline{90}$$

Count by 9s. Then look at the digits.

$$9 \quad 18 \quad \underline{27} \quad 36 \quad \underline{45}$$

$$\underline{54} \quad 63 \quad \underline{72} \quad \underline{81} \quad 90$$

5. The tens digit goes up by 1

6. The ones digit goes down by 1

7. The digits add up to 9

Divide. Write the times fact too.

$$8. \quad 54 \div 9 = \underline{6} \quad 9 \times \underline{6} = 54$$

$$9. \quad 45 \div 9 = \underline{5} \quad 9 \times \underline{5} = 45$$

$$10. \quad 63 \div 9 = \underline{7} \quad 9 \times \underline{7} = 63$$

$$11. \quad 27 \div 9 = \underline{3} \quad 9 \times \underline{3} = 27$$

$$12. \quad 72 \div 9 = \underline{8} \quad 9 \times \underline{8} = 72$$

$$13. \quad 81 \div 9 = \underline{9} \quad 9 \times \underline{9} = 81$$