

1 Warm-up: Skip Count by 8s and 9s

2-min Fluency Warm-up — Skip count. Fill in the missing numbers.

Count by 8s, then by 9s.

Count by 8:



Count by 9:



2 The 9s Secret

The 9s Secret! Look at the 9s: 9, 18, 27, 36, 45... The two digits of every answer **add up to 9!** ($1+8=9$, $2+7=9$, $3+6=9$). And the tens digit is always **ONE LESS** than the number you multiplied. Try it:

$$9 \times 4$$

Tens digit (one less than 4): _____

Ones digit (digits add to 9): _____

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

$$9 \times 6$$

Tens digit (one less than 6): _____

Ones digit (digits add to 9): _____

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

$$9 \times 8$$

Tens digit (one less than 8): _____

Ones digit (digits add to 9): _____

$$9 \times 8 = \underline{\hspace{2cm}}$$

$$9 \times 7$$

Tens digit (one less than 7): _____

Ones digit (digits add to 9): _____

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

3 Strategy: 8s are Triple-Doubles

Strategy: 8s are **triple-doubles!** To find 8×3 : double 3 ($=6$), double again ($=12$), double once more ($=24$). Try it:

$$8 \times 4$$

Double 4: _____ → Double: _____ →

Double: _____

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

$$8 \times 2$$

Double 2: _____ → Double: _____ →

Double: _____

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

$$8 \times 5$$

Double 5: _____ → Double: _____ →

Double: _____

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

$$8 \times 3$$

Double 3: _____ → Double: _____ →

Double: _____

$$8 \times 3 = \underline{\hspace{2cm}}$$

4 Word Problems

Write the multiplication sentence and solve. Use any strategy!

An octopus has 8 arms. How many arms do 3 octopuses have?

A baseball team has 9 players. How many players are on 4 teams?

Multiplication sentence: _____
_____ arms

Multiplication sentence: _____
_____ players

5 Number Talk: Check It!

Number Talk — Explain WITHOUT multiplying.

Tom says $9 \times 6 = 56$.

Use the 9s secret to check — could 56 be right?

My thinking: _____

Which is easier for YOU: 8×2 or 2×8 ? Why?

My thinking: _____