

Short cut for teaching multiplication facts using only 21 facts to memorize

TEACH these as “tricks”

Zero (0) times any number is always zero

$$0 \times 7 = 0$$

1 times any number is always that number

$$1 \times 7 = 7$$

11 times any number, double the number up to 99

$$11 \times 7 = 77$$

Teach the facts for 2,5,10 as “BOP or TOUCH counts”

Have student hold up fingers to represent what number will be used to multiply by
2 X 7 (student holds up 7 fingers, and touches each finger, saying 2,4,6,7,8,...14)

Same for 5 and 10

5 X 7 (student holds up 7 fingers, and touches each finger saying 5,10,15, 20...35)

10 X 7 (students holds up 7 fingers, counts 10, 20, 30...70)

Then introduce other math facts in “families” but do not reteach facts already “covered” by the methods above. In other words, you would never introduce any fact of a “family” for 1,2,5,10,11

Facts for family of 3

3 X 3 Mix these facts with those from above and practice

$$3 \times 4$$

$$3 \times 6$$

$$3 \times 7$$

$$3 \times 8$$

$$3 \times 9$$

Then add facts for family of 4

4 X 4 (because you have already covered facts, 4 X 0 and 1,2,3, 5, 10, 11)

$$4 \times 6$$

$$4 \times 7$$

$$4 \times 8$$

$$4 \times 9$$

Then add facts for family of 6

$$6 \times 6$$

$$6 \times 7$$

$$6 \times 8$$

$$6 \times 9$$

Then add family of 7

$$7 \times 7, 7 \times 8, 7 \times 9$$

Add family of 8

$$8 \times 8, 8 \times 9$$

Fact family of 9, only 9 X 9

This is much easier to teach, only 21 facts to memorize.

Teachers DO NOT rearrange order of numbers until student is demonstrating proficiency. Brain will see $3 \times 4 = 12$ as a pattern so no need to confuse student with $4 \times 3 = 12$.