

18.1.21

WALT Mentally Multiply Three Numbers

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PS

# ANSWERS

## Fluency

Look for Two Numbers that Multiply to Make 12 or Less

|   |   |          |   |          |   |   |    |
|---|---|----------|---|----------|---|---|----|
| 1 | 2 | $\times$ | 3 | $\times$ | 5 | = | 30 |
| 2 | 4 | $\times$ | 2 | $\times$ | 6 | = | 48 |
| 3 | 3 | $\times$ | 6 | $\times$ | 3 | = | 54 |
| 4 | 7 | $\times$ | 6 | $\times$ | 2 | = | 84 |
| 5 | 3 | $\times$ | 8 | $\times$ | 4 | = | 96 |

Multiply by 10 last

|   |    |          |    |          |    |   |     |
|---|----|----------|----|----------|----|---|-----|
| 6 | 7  | $\times$ | 3  | $\times$ | 10 | = | 210 |
| 7 | 3  | $\times$ | 10 | $\times$ | 9  | = | 270 |
| 8 | 10 | $\times$ | 8  | $\times$ | 6  | = | 480 |
| 9 | 7  | $\times$ | 10 | $\times$ | 5  | = | 350 |

Look for Two Numbers that Multiply to Make a Multiple of 10

|    |   |          |   |          |   |   |     |
|----|---|----------|---|----------|---|---|-----|
| 10 | 5 | $\times$ | 4 | $\times$ | 7 | = | 140 |
| 11 | 6 | $\times$ | 3 | $\times$ | 5 | = | 90  |
| 12 | 9 | $\times$ | 5 | $\times$ | 8 | = | 360 |

### Reasoning 1

$$2 \times 10 \times 2 = 40$$

$$4 \times 5 \times 2 = 40$$

$$2 \times 5 \times 3 = 30$$

$$4 \times 10 \times 1 = 40$$

I have noticed that  $2 \times 5 \times 3$  is the odd one out because the answer is 30 and the answer to all of the other calculations is 40.

## Reasoning 2

1.  $2 \times 3 = 6$

$6 \div 3 = 2$

2.  $2 \times 5 = 10$

$10 \div 5 = 2$

I agree with Gary. When you multiply numbers, you can change the order of the numbers you multiply in the number sentence and you will still get the same answer.

I already knew this because I can write 2 different multiplication number sentences when I write a Fact Family for a times table question.

### Problem Solving 1

$$2 \times 4 \times 5 = 40$$

$$4 \times 2 \times 5 = 40$$

$$5 \times 2 \times 4 = 40$$

$$2 \times 5 \times 4 = 40$$

$$4 \times 5 \times 2 = 40$$

$$5 \times 4 \times 2 = 40$$

$$2 \times 2 \times 10 = 40$$

$$2 \times 10 \times 2 = 40$$

$$10 \times 2 \times 2 = 40$$

You could also write some number sentences that include 1 as one of the missing numbers, such as:

$$1 \times 4 \times 10 = 40$$

$$1 \times 5 \times 8 = 40$$

I used my times tables knowledge to help me find the missing numbers.

I already know that:

$$2 \times 20 = 40$$

$$4 \times 10 = 40$$

$$\text{and } 5 \times 8 = 40$$

### Problem Solving 2

1.  $5 \times 4 \times 5 = 100$

2.  $3 \times 10 \times 6 = 180$

3.  $7 \times 3 \times 3 = 63$

4.  $2 \times 9 \times 6 = 108$

5.  $4 \times 2 \times 11 = 88$

6.  $2 \times 9 \times 10 = 180$

