# Can I multiply a 2-digit number by a 1-digit number (with regrouping)?

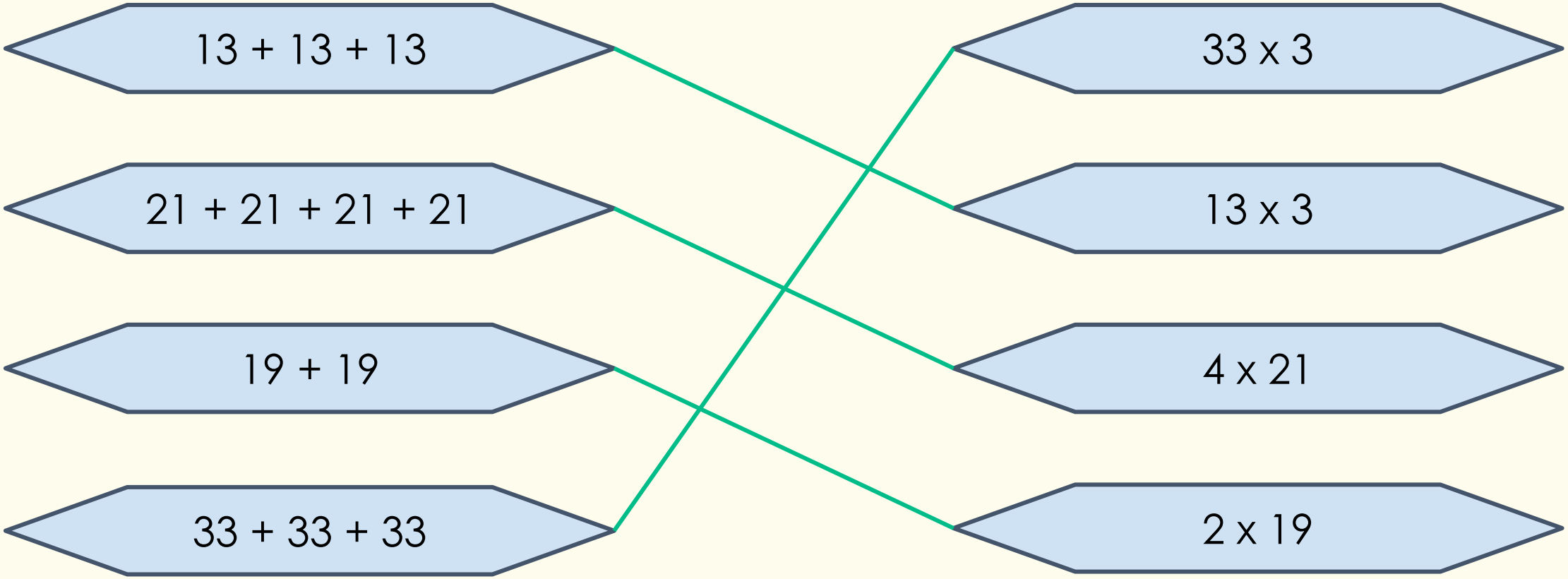
Success Criteria

- ❑ I can use repeated addition to show a 2-digit number multiplied by a 1-digit number
- ❑ I understand when I need to exchange in multiplication

# To multiply a 2-digit number by a 1-digit number (with exchange)

## In focus task

**Match the addition calculation with the appropriate multiplication calculation.**



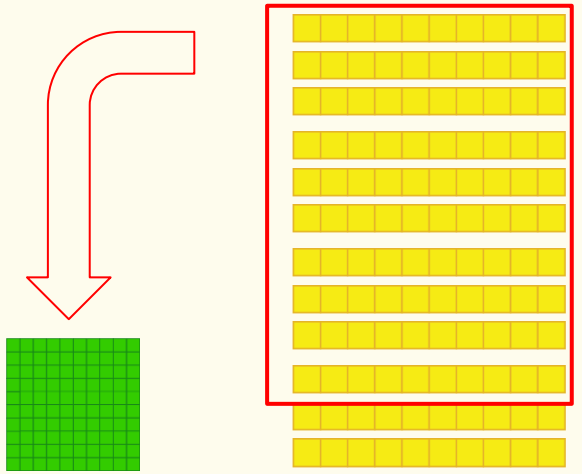

Answers

# To multiply a 2-digit number by a 1-digit number (with exchange)

The mathstronaut uses base 10 equipment to calculate 31 × 4.

**Help him find the answer.**

What is happening here?



| Hundreds | Tens | Ones |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

| | | |
|---|---|---|
| | 3 | 1 |
| x | | 4 |
| | | |

124

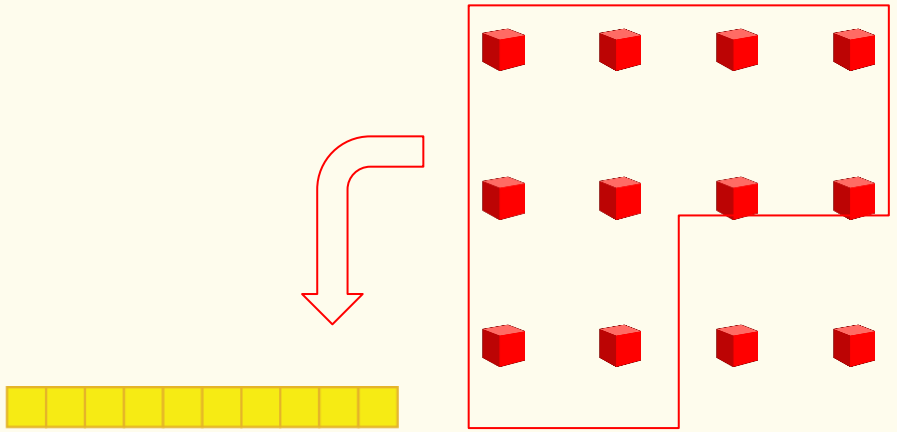
Answers

# To multiply a 2-digit number by a 1-digit number (with exchange)

## Guided Practice:

**Use base 10 equipment to calculate 24 x 3.** 24 x 3 = 72

| Tens | Ones |
| --- | --- |
|  |  |
|  |  |
|  |  |
| | |



Answers

# To multiply a 2-digit number by a 1-digit number (with exchange)

**Independent Practice:**

**1.** Use base 10 to calculate the multiplication problems below. Remember to exchange if you need to.

**a.**

| | | |
|---|---|---|
| | 3 | 3 |
| x | | 5 |
| | | |

**b.**

| | | |
|---|---|---|
| | 2 | 1 |
| x | | 8 |
| | | |

**c.**

| | | |
|---|---|---|
| | 2 | 5 |
| x | | 3 |
| | | |

**d.**

| | | |
|---|---|---|
| | 3 | 4 |
| x | | 3 |
| | | |

# To multiply a 2-digit number by a 1-digit number (with exchange)

**Guided Practice:**

**Explain the mistake.**

| | | |
|---|---|---|
| | 1 | 5 |
| x | | 4 |
| 4 | 2 | 0 |

The exchange has not been performed correctly. The 4 tens should be added to the 2 tens to give a correct answer of 60.

Answers

# To multiply a 2-digit number by a 1-digit number (with exchange)

**Independent Practice:**

**2.** Look at these calculations. For each one say whether it is correct or incorrect. Find the correct answer for any that are wrong. Can you explain the mistake?

**a.**

| | 3 | 3 |
|---|---|---|
| x | | 4 |
| 1 | 3 | 2 |

**b.**

| | 3 | 5 |
|---|---|---|
| x | | 3 |
| 9 | 1 | 5 |

**c.**

| | 4 | 2 |
|---|---|---|
| x | | 6 |
| 2 | 4 | 2 |

**d.**

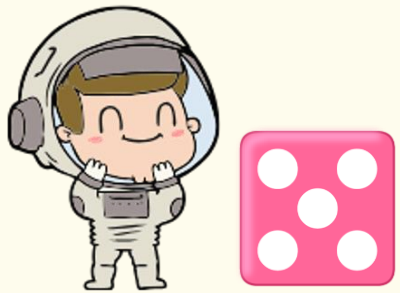
| | 5 | 3 |
|---|---|---|
| x | | 2 |
| 1 | 0 | 6 |

# To multiply a 2-digit number by a 1-digit number (with exchange)

**Guided Practice:**

The mathstronaut are playing  game, ‘How close can you get to 100?’. They both start with 23 and each roll a dice to complete the multiplication.

**Who will win the game?**





| | 2 | 3 |
|---|---|---|
| x | | |
| | | |

| | 2 | 3 |
|---|---|---|
| x | | |
| | | |

Mathstronaut 2 wins.

Mathstronaut 1 made 23 x 5 = 115  Mathstronaut 2 made 23 x 4 = 92

92 is closer to 100 than 115.

Answers

# To multiply a 2-digit number by a 1-digit number (with exchange)

**Independent Practice:**

**3.** Play ‘how close can you get to 100?’ with a partner. Use the starter number given and each roll a dice to complete the multiplication. Use base 10 or place value counters to calculate the answer. The closest to 100 wins a point for each round.

**Round 1**

| | 1 | 8 |
|---|---|---|
| x | | □ |
| | | |

**Round 2**

| | 2 | 4 |
|---|---|---|
| x | | □ |
| | | |

**Round 3**

| | 2 | 8 |
|---|---|---|
| x | | □ |
| | | |

**Round 4**

| | 3 | 6 |
|---|---|---|
| x | | □ |
| | | |

# To multiply a 2-digit number by a 1-digit number (with exchange)

**Light Bulb Challenge**

**Always, sometimes or never?**

When multiplying a two-digit number by a one-digit number, the answer _____ has two digits.

Give examples to prove your answer is correct.

Sometimes.

For example 24 x 4 = 96  24 x 8 = 192

Answers