### 13.01 .21

## EMA

|  | $\star$ |  | $\star \star$ |  | $\star \star \star$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| A1.v | $2+6$ | B1.v | $4+61$ | C1.v | $83+7$ |
| A2.v | $6+3$ | B2.v | $8+90$ | C2.v | $4+83$ |
| A3.v | $6+9$ | B3.v | $96+9$ | C3.v | $59+8$ |
| A4.v | $9+8$ | B4.v | $6+46$ | C4.v | $26+4$ |
| A5.v | $2+2$ | B5.v | $8+89$ | C5.v | $26+10$ |

### 13.01.21 EMA - answers

|  | $\star$ |  | $\star \star$ |  | $\star \star \star$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| A1.U | 8 | B1.v | 65 | C1.v | 90 |
| A2.U | 9 | B2.v | 98 | C2.v | 87 |
| A3.U | 15 | B3.v | 105 | C3.v | 67 |
| A4.U | 17 | B4.v | 52 | C4.v | 30 |
| A5.U | 4 | B5.v | 97 | C5.v | 36 |

13.01 .21

## Grid Multiplication



### 13.01.21 Grid Multiplication

Recap

Show $3 \times 4$ as an array .......

$$
8888=12
$$

## Your turn...

Show $5 \times 2$ as an array.....

## Your turn...

Show $5 \times 2$ as an array.....


### 13.01.21 Grid Multiplication

Recap

Show as an array...
$13 \times 4=$


### 13.01.21 Grid Multiplication

## Recap

Show as an array...


### 13.01 .21

## Grid Multiplication

1. Draw your grid
2. Partition the 2-digit number across the top of your grid.
3. Write the 1-digit number along the side of your grid.
4. Multiply
5. Add your answers together.

Recap

| $X$ | 10 | 2 |
| :---: | :---: | :---: |
| 5 |  |  |
|  |  |  |

Recap
$12 \times 5=$

| $X$ | 10 | 2 |
| :---: | :---: | :---: |
| 5 | 50 | 10 |
|  |  |  |
|  |  |  |
|  |  |  |

$12 \times 5=60$

## Your Turn

$15 \times 3=$

| $\mathbf{X}$ | 10 |
| :---: | :---: |
|  | 5 |
| 3 |  |

$15 \times 3=$

## Your Turn <br> You can check your answer

| $\mathbf{X}$ | 10 | 5 |
| :---: | :---: | :---: |
| 3 | 30 | 15 |


$15 \times 3=45$

## My Turn

Do you remember your related facts for multiplication?


If I know
$3 \times 4=12$
Then
$30 \times 4=120$

## My Turn

Do you remember your related facts for multiplication?


120
$+20$

140
$35 \times 4=140$
*I can solve multiplication calculations using arrays.

Draw arrays or use objects to solve the following questions.

1) $8 \times 3=$
2) $3 \times 9=$
3) $4 \times 7=$
4) $6 \times 6=$
5) $8 \times 5=$
6) $3 \times 7=$
7) $6 \times 4=$
8) $4 \times 8=$
${ }^{* *}$ I can solve multiplication
calculations using a grid method.
9) $16 \times 3=$
10) $15 \times 5=$
11) $12 \times 5=$
12) $16 \times 5=$
13) $19 \times 3=$
14) $14 \times 3=$
15) $17 \times 2=$
16) $18 \times 5=$
17) $11 \times 4=$
18) $17 \times 4=$
***I can solve multiplication
calculations using a grid method.
19) $23 \times 5=$
20) $26 \times 2=$
21) $84 \times 3=$
22) $76 \times 5=$
23) $92 \times 8=$
24) $48 \times 5=$
25) $35 \times 8=$
26) $52 \times 4=$
27) $92 \times 4=$
28) $57 \times 8=$
29) One length of a swimming pool is 22 m . Charlie swims 9 lengths. How far does he swim?
30) Stamps cost $36 p$ each. What do seven stamps cost?

## CHALLENGE

Erid Multiplication Mastery

| $x$ | 30 | 2 |
| :---: | :---: | :---: |
|  |  | 4 |


| $x$ | 20 | 7 |
| :---: | :---: | :---: |
|  | 120 |  |

$\qquad$ -

| $x$ |  | 2 |
| :---: | :---: | :---: |
| 5 | 150 |  |


| $x$ | 50 | 8 |
| :---: | :---: | :---: |
|  |  | 32 |

$\qquad$
$\qquad$ - $\qquad$ $\times$ --

| $x$ | 40 | 5 |
| :---: | :---: | :---: |
|  | 200 |  |

$\qquad$
$\qquad$ - $\qquad$

| $x$ | 30 | 6 |
| :---: | :---: | :---: |
|  |  | 24 |


| $x$ | 20 | 9 |
| :---: | :---: | :---: |
|  | 160 |  |


| $x$ |  | 9 |
| :---: | :---: | :---: |
| 4 | 160 |  |


| $x$ | 70 | 5 |
| :---: | :---: | :---: |
|  | 420 |  |

*I can solve multiplication calculations using arrays.

Draw arrays or use objects to solve the following questions.

1) $8 \times 3=24$
2) $3 \times 9=27$
3) $4 \times 7=28$
4) $6 \times 6=36$
5) $8 \times 5=40$
6) $3 \times 7=21$
7) $6 \times 4=24$
8) $4 \times 8=32$
**I can solve multiplication
calculations using a grid method.
9) $16 \times 3=48$
10) $15 \times 5=75$
11) $12 \times 5=60$
12) $16 \times 5=80$
13) $19 \times 3=57$
14) $14 \times 3=42$
15) $17 \times 2=34$
16) $18 \times 5=90$
17) $11 \times 4=44$
18) $17 \times 4=68$
***I can solve multiplication
calculations using a grid method.
19) $23 \times 5=115$
20) $26 \times 2=52$
21) $84 \times 3=252$
22) $76 \times 5=380$
23) $92 \times 8=736$
24) $48 \times 5=240$
25) $35 \times 8=280$
26) $52 \times 4=208$
27) $92 \times 4=368$
28) $57 \times 8=456$
29) One length of a swimming pool is 22 m . Charlie swims 9 lengths. How far does he swim? 198
30) Stamps cost $36 p$ each. What do seven stamps cost? 252

## CHALLENGE - answers

Answers

| $x$ | 30 | 2 |
| :---: | :---: | :---: |
| 2 | 60 | 4 |$\quad$| $x$ | 20 | 7 |
| :---: | :---: | :---: |
| 6 | 120 | 42 |


| $27 \times 6=162$ |
| :---: |
| or |
| $2 \times 32=64$ |

or
$6 \times 27=162$

| $x$ | 30 | 2 |
| :---: | :---: | :---: |
| 5 | 150 | 10 |

$32 \times 5=160$
or
$5 \times 32=160$

| $x$ | 50 | 8 |
| :---: | :---: | :---: |
| 4 | 200 | 32 |
| $58 \times 4=232$ |  |  |
| or |  |  |
| $4 \times 58=232$ |  |  |


| $x$ | 40 | 5 |
| :---: | :---: | :---: |
| 5 | 200 | 25 |

$45 \times 5=225$
or
$5 \times 45=225$

| $x$ | 90 | 7 |
| :---: | :---: | :---: |
| 3 | 270 | 21 |

$97 \times 3=291$
or
$3 \times 97=291$

| $x$ | 20 | 9 |
| :---: | :---: | :---: |
| 8 | 160 | 72 |

$29 \times 8=232$
or
$8 \times 29=232$

| $x$ | 40 | 9 |
| :---: | :---: | :---: |
| 4 | 160 | 36 |


| $x$ | 70 | 5 |
| :---: | :---: | :---: |
| 6 | 420 | 30 |

$75 \times 5=450$
or
$6 \times 75=450$

