Wednesday

HALF WAY TO THE

Weekend
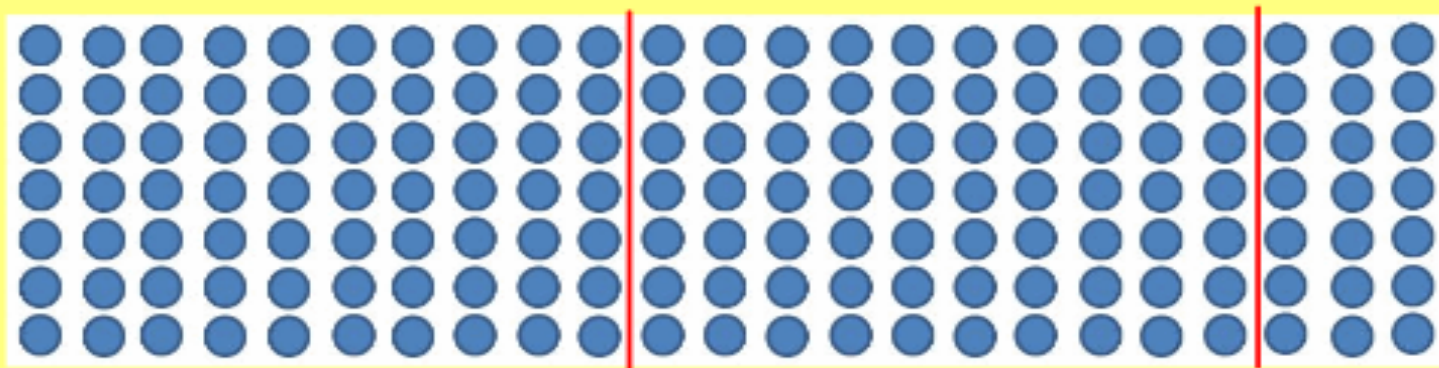
What key vocabulary do we use?

Lots of, groups of, times, multiply, multiplication, multiplied by, multiple of, product, once, twice, three times………. ten times as (big, long, wide etc.) inverse, finding all possibilities, variables, enumerate, combinations, systematic, organised, pattern, starting point, generalise.
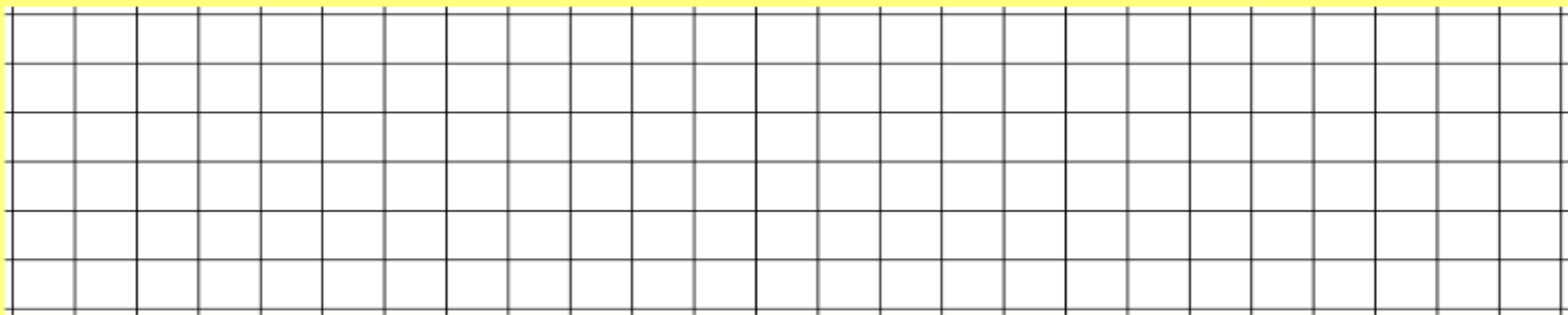
What does multiplication look like?

4 x 5 =

23 x 7 =

What methods of multiplication can we use?

What is the effect of x 10, 100, 1000?

3.6 x 4 =

(3 x 4) + (0.6 x 4) =

19 x 14 =

20 x 14 – 14 =

or

3.6 x 2 and then double.

14 x 24 =

(14 x 20) + (14 x 4) =

			2	0			4	
1	0							
	4							

```
      1 4
    x 2 4
    _____        ( 4 x 4 )
                   ( 1 0 x 4 )



    _____
    _____
```

```
      1 4
    x 2 4
    _____        ( 1 4 x 4 )


    _____
    _____
```

```
  2 8 5          2 8 5              1 3 6
  x 6            x 6                    4
_____        _____            _____

             _____

_____                      _____

_____                      _____
```

Can we make this compact?

A

Copy and complete.

1
```
      68
×     13
          (68 × 3)
          (68 × 10)
_____
_____
```

2
```
     492
×     18
          (492 × 8)
          (492 × 10)
_____
_____
```

3
```
      36
×     24
          (36 × 4)
          (36 × 20)
_____
_____
```

4
```
     267
×     35
          (267 × 5)
          (267 × 30)
_____
_____
```

Work out

5 63 × 42   **9** 174 × 34

6 57 × 26   **10** 219 × 28

7 49 × 19   **11** 438 × 17

8 85 × 23   **12** 365 × 45

B

Copy and complete.

1
```
    1247
×     26
          (1247 × 6)
          (1247 × 20)
_____
_____
```

2
```
    2538
×     14
          (2538 × 4)
          (2538 × 10)
_____
_____
```

3
```
    1673
×     38
          (1673 × 8)
          (1673 × 30)
_____
_____
```

4
```
    3496
×     25
          (3496 × 5)
          (3496 × 20)
_____
_____
```

Work out

5 5728 × 16   **9** 6257 × 43

6 4359 × 37   **10** 1985 × 24

7 2584 × 29   **11** 4874 × 39

8 3046 × 35   **12** 7169 × 48

C

Work out

1 24 135 × 28

2 57 248 × 19

3 42 186 × 34

4 16 259 × 45

5 35 367 × 26

6 49 526 × 37

7 21 687 × 85

8 52 958 × 64

9 249 × 183

10 376 × 256

11 458 × 149

12 864 × 572

13 327 × 265

14 483 × 174

15 739 × 328

16 562 × 437

17 One can weighs 387 g. There are 36 cans in a box. What is the total weight of 25 boxes in kilograms?

Some cars (with 4 wheels) and 2 wheeled bikes go past the window. I see nine vehicles and 26 wheels. How many of each vehicle are there?

John and Sarah have the same number of pencils.
John has 3 full boxes and 4 loose pencils.
Sarah has 2 full boxes and 12 loose pencils.
Each box holds the same number of pencils.
How many pencils are there in a box?

612 is the product of two whole numbers.
How many different pairs can you think of?

$\square$ X $\square$ = 612

John has these four digit cards.

2   2   4   6

He puts them into these calculations:

$\square\square$ X $\square\square$ $\square\square\square$ X $\square$

Find all the products he can make between 500 and 1000.

In a farmyard I can see goats and ducks. If I can see **54 feet** and **20 heads**, how many goats and ducks might there be?

write in the missing digits 23 × $\square$ = 78$\square$

Can you design your own missing digit multiplication questions?

Goats	Ducks
13 (52)	1 (2)
12 (48)	3 (6)
11 (44)	5 (10)
10 (40)	7 (14)
9 (36)	9 (18)
8 (32)	11 (22)
7 (28)	13 (26)
6 (24)	15 (30)
5 (20)	17 (34)
4 (16)	19 (38)
3 (12)	21 (42)
2 (8)	23 (46)
1 (4)	25 (50)

A

1 884	**5** 2646	**9** 5916
2 8856	**6** 1482	**10** 6132
3 864	**7** 931	**11** 7446
4 9345	**8** 1955	**12** 16 425

B

1 32 422	**5** 91 648	**9** 269 051
2 35 532	**6** 161 283	**10** 47 640
3 63 574	**7** 74 936	**11** 190 086
4 87 400	**8** 106 610	**12** 344 112

C

1 675 780	**7** 1 843 395	**13** 86 655
2 1 087 712	**8** 3 389 312	**14** 84 042
3 1 434 324	**9** 45 567	**15** 242 392
4 731 655	**10** 96 256	**16** 245 594
5 919 542	**11** 68 242	**17** 348·3 kg
6 1 832 462	**12** 494 208	