

# Maths Lesson

## Year 3

Write your date and title in your exercise book.

23.2.21

Can I use my  $\times$  tables to work out related facts?

Don't forget to post a photo of your work on class dojo!





# Warm Up



## Worksheet on 8 Times Table

- 8 × 0 = \_\_\_\_\_
- 8 × 1 = \_\_\_\_\_
- 8 × 2 = \_\_\_\_\_
- 8 × 3 = \_\_\_\_\_
- 8 × 4 = \_\_\_\_\_
- 8 × 5 = \_\_\_\_\_
- 8 × 6 = \_\_\_\_\_
- 8 × 7 = \_\_\_\_\_
- 8 × 8 = \_\_\_\_\_
- 8 × 9 = \_\_\_\_\_
- 8 × 10 = \_\_\_\_\_
- 8 × 11 = \_\_\_\_\_
- 8 × 12 = \_\_\_\_\_

In order



Out of order



## Learn your 8 times tables



More 8x table questions, all the way up to 12 x 8!!

1.  $4 \times 8 =$

3.  $7 \times 8 =$

5.  $5 \times 8 =$

7.  $12 \times 8 =$

9.  $9 \times 8 =$

11.  $10 \times 8 =$

13.  $6 \times 8 =$

15.  $11 \times 8 =$

2.  $6 \times 8 =$

4.  $3 \times 8 =$

6.  $2 \times 8 =$

8.  $8 \times 8 =$

10.  $0 \times 8 =$

12.  $11 \times 8 =$

14.  $1 \times 8 =$

16.  $5 \times 8 =$

## Main Lesson:

Today we will solve multiplication calculations using the 8 x tables to help us.

Look at these x8 calculations:

# X by 8

### Using the 8 x tables

- $3 \times 8 = 24$
- $3 \times 80 = 240$
- $3 \times 800 = 2400$
- $8 \times 3 = 24$
- $8 \times 30 = 240$
- $8 \times 300 = 2400$

What do you notice?

What patterns can you see?

## Top Tip

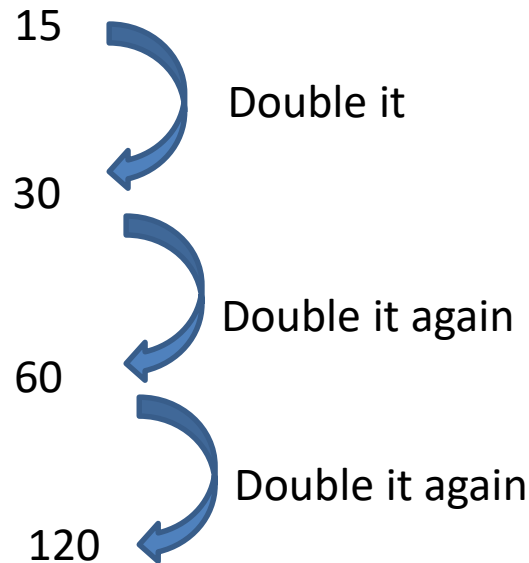
This is an easy way to x any number by 8.

# X by 8

**X by 8 by doubling, doubling and doubling again.**

**Calculation:**  
**8 x 15**

Working out:



**Answer:**  
**120**

When you x by 8, you can double the number and then double it again and then double it again!

You can do this with small and large numbers.

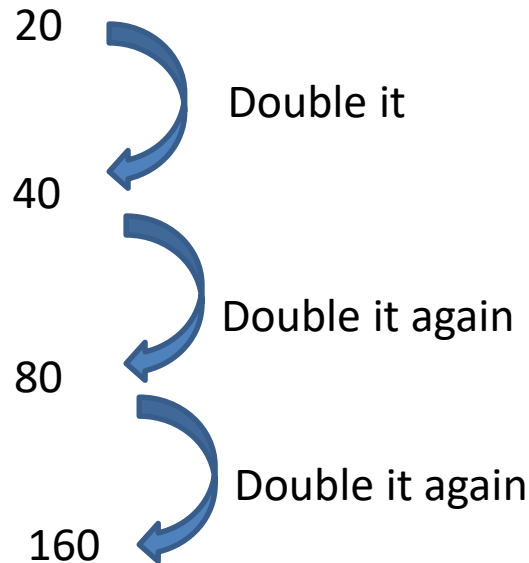
Another example:

# X by 8

**X by 8 by doubling, doubling and doubling again.**

**Calculation:**  
**8 x 20**

Working out:



**Answer:**  
**160**

When you x by 8, you can double the number and then double it again and then double it again!

You can do this with small and large numbers.

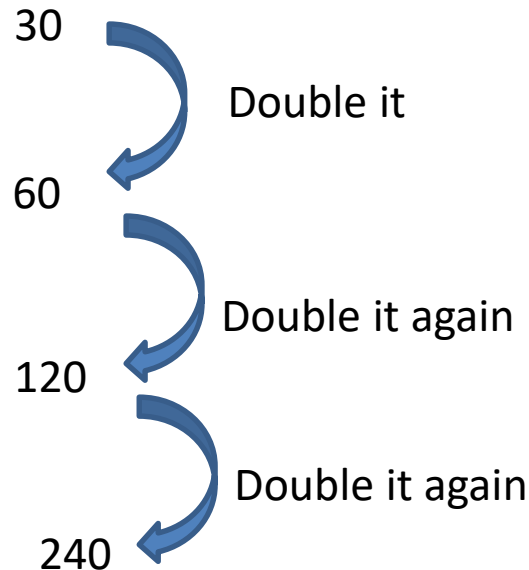
Another example:

# X by 8

**X by 8 by doubling, doubling and doubling again.**

**Calculation:**  
**8 x 30**

Working out:



**Answer:**  
**240**

When you x by 8, you can double the number and then double it again and then double it again!

You can do this with small and large numbers.

## Top Tip:

How to work out 'Fill the Gap' questions.

# X by 8

Use the inverse calculation to solve questions with spaces

The inverse of x by 8 is  $\div$  by 8

$$\boxed{\phantom{00}} \times 8 = 40$$

To work out what this number is, do the inverse calculation:

$$40 \div 8 = \boxed{\phantom{00}}$$

**TARGET** To recall and use  $\times/\div$  facts for 8.

**A**

Double and double again to multiply by 4.

- |      |      |
|------|------|
| 1 5  | 6 4  |
| 2 11 | 7 9  |
| 3 3  | 8 6  |
| 4 7  | 9 12 |
| 5 10 | 10 8 |

Double, double and double again to multiply by 8.

- |       |       |
|-------|-------|
| 11 10 | 16 5  |
| 12 6  | 17 8  |
| 13 2  | 18 11 |
| 14 12 | 19 4  |
| 15 7  | 20 9  |

21 Copy and complete by doubling.

TIMES TABLES		
Twos	Fours	Eights
2		
4		
6		
8		
10		
12		
14		
16		
18		
20		
22		
24		

**B**

Write the answers only.

- |                 |                |
|-----------------|----------------|
| 1 $4 \times 8$  | 11 $40 \div 8$ |
| 2 $6 \times 8$  | 12 $8 \div 8$  |
| 3 $12 \times 8$ | 13 $88 \div 8$ |
| 4 $9 \times 8$  | 14 $56 \div 8$ |
| 5 $5 \times 8$  | 15 $32 \div 8$ |
| 6 $10 \times 8$ | 16 $72 \div 8$ |
| 7 $7 \times 8$  | 17 $16 \div 8$ |
| 8 $3 \times 8$  | 18 $64 \div 8$ |
| 9 $11 \times 8$ | 19 $96 \div 8$ |
| 10 $8 \times 8$ | 20 $48 \div 8$ |

Copy and complete.

- |                            |
|----------------------------|
| 21 $\square \times 8 = 56$ |
| 22 $\square \times 8 = 16$ |
| 23 $\square \times 8 = 72$ |
| 24 $\square \times 8 = 96$ |
| 25 $\square \times 8 = 48$ |
| 26 $\square \times 8 = 24$ |
| 27 $\square \times 8 = 80$ |
| 28 $\square \times 8 = 64$ |
| 29 $\square \div 8 = 4$    |
| 30 $\square \div 8 = 7$    |
| 31 $\square \div 8 = 10$   |
| 32 $\square \div 8 = 6$    |
| 33 $\square \div 8 = 11$   |
| 34 $\square \div 8 = 8$    |
| 35 $\square \div 8 = 5$    |
| 36 $\square \div 8 = 9$    |

**C**

Write the answers only.

- |                 |                 |
|-----------------|-----------------|
| 1 $30 \times 8$ | 9 $640 \div 8$  |
| 2 $90 \times 8$ | 10 $240 \div 8$ |
| 3 $40 \times 8$ | 11 $480 \div 8$ |
| 4 $80 \times 8$ | 12 $960 \div 8$ |
| 5 $60 \times 8$ | 13 $400 \div 8$ |
| 6 $20 \times 8$ | 14 $560 \div 8$ |
| 7 $50 \times 8$ | 15 $880 \div 8$ |
| 8 $70 \times 8$ | 16 $720 \div 8$ |

Work out by multiplying by 8 and doubling.

- |                   |                   |
|-------------------|-------------------|
| 17 $4 \times 16$  | 22 $9 \times 16$  |
| 18 $7 \times 16$  | 23 $5 \times 16$  |
| 19 $3 \times 16$  | 24 $10 \times 16$ |
| 20 $6 \times 16$  | 25 $8 \times 16$  |
| 21 $11 \times 16$ | 26 $12 \times 16$ |

27 Maurice earns £8 per hour. How much does he earn if he works 37 hours in a week?

28 There are eight cookies in each packet.

a) How many cookies are needed to make 68 packets?

b) How many packets can be made from 280 cookies?

29 What is 8 times 8 times 8?

Now have  
a go at  
these

A = Easy

B = Medium

C = Harder

# If you have time...

Try a multiplication and division **game**.



<https://www.topmarks.co.uk/maths-games/7-11-years/multiplication-and-division>

Don't forget to post a photo  
of your work on class dojo!

