

<b>Learning Objective:</b>	Continuous Grouped Data	<b>Name:</b>	
		<b>Date:</b>	

**Do NOW Activity:**

- 1 Find the **nth term** 7, 10, 13, 16
- 2 **Simplify** the ratio 52 : 13
- 3 **Work out**  $7 \times \text{£}12.45$
- 4 Work out the **mean** 0.6, 1.4, 0.2, 0.8, 2
- 5 Complete the **equivalent fraction**  $\frac{5}{6} = \frac{?}{54}$

**PRIOR KNOWLEDGE CHECK:**

1. I can find multiples and factors

**THE MAIN EVENT**

**WORKED EXAMPLE #1:**

Here are the weights, in kg, of 30 students.

45, 52, 56, 65, 34, 45, 67, 65, 34, 45, 65, 87, 45, 34, 56,  
54, 45, 67, 84, 45, 67, 45, 56, 76, 57, 84, 35, 64, 58, 60

Copy and complete the frequency table below using a class interval of 10 and starting at 30.

Weight Range ( <i>w</i> )	Tally	Frequency
$30 \leq w < 40$		

Here are the weights, in kg, of 30 students.

45, 52, 56, 65, ~~34~~, 45, 67, 65, ~~34~~, 45, 65, 87, 45, ~~34~~, 56,  
54, 45, 67, 84, 45, 67, 45, 56, 76, 57, 84, ~~35~~, 64, 58, 60

Copy and complete the frequency table below using a class interval of 10 and starting at 30.

Weight Range ( <i>w</i> )	Tally	Frequency
$30 \leq w < 40$	IIII	4
$40 \leq w < 50$	IIII II	7
$50 \leq w < 60$	IIII II	7
$60 \leq w < 70$	IIII III	8
$70 \leq w < 80$	I	1
$80 \leq w < 90$	III	3

**PRACTICE #1:**

1. An airline company records the weights of the bags that passengers check in (in kg to 1 dp).

7.3	8.2	9.1	9.0	6.2	6.1
7.0	8.4	4.9	5.4	6.4	7.9
10.8	11.2	13.4	11.2	7.8	4.3
7.9	12.4	11.6	9.4	9.0	6.7
10.5	9.5	4.7	5.6	7.1	8.2

- A) Copy and complete the grouped frequency table.
- B) What is the modal class?

Weight (kg)	Tally	Frequency
$4 \leq w < 6$		
$6 \leq w < 8$		
$8 \leq w < 10$		
$10 \leq w < 12$		
$12 \leq w < 14$		

2. Mr Jackson times the students in class 7C doing a Maths puzzle (in seconds to 1dp).

22.5	12.3	6.3	9.9	29.0	22.2	37.0	17.2	17.2	28.4
37.0	29.7	4.1	28.8	27.0	23.8	14.8	10.0	20.0	33.8
30.1	32.2	20.1	21.6	10.5	23.7	36.7	25.5	18.8	25.6

- A) Copy and complete the grouped frequency table.  
 B) What is the modal class?  
 C) The cut off point for Bronze medal was 30 seconds. How many students got a medal?

Time (s)	Tally	Frequency
$0 \leq t < 10$		
$10 \leq t < 20$		

3). 50 Year 11 pupils measured the length of their middle fingers in mm. Here are the results.

66	78	74	83	68	84	75	81	84	71	79	79	83	80
74	92	87	69	75	71	86	94	83	76	66	86	71	84
79	71	84	81	80	78	72	68	94	78	72	84	73	87
73	86	79	87	82	71	70	75						



- a). Draw a frequency table. (Decide on appropriate **equal class interval** sizes, then tally the data ).

4). 54 Year 11 pupils measured how far they could throw the javelin to the nearest metre.

26	28	32	29	23	32	31	31	23	28	22	27	27	25
29	29	31	30	28	30	27	27	24	28	33	21	32	21
34	34	22	29	26	33	26	23	29	31	24	27	24	23
28	20	28	27	28	22	32	33	34	26	25	24		



Draw a frequency table for the data above.

5). 56 Year 9 pupils measured how long they could hold their breath in seconds.

106	88	97	110	93	103	111	103	109	90	89	112	101	101
112	107	103	119	95	97	91	99	89	93	98	109	108	91
97	110	93	103	111	103	109	90	89	112	101	111	90	99
95	97	94	99	89	93	98	109	108	91	104	96	105	106

Draw a frequency table for the data above.

6). 70 Year 10 pupils measured their reaction times in seconds.

1.6	0.5	0.8	0.9	1.1	1.0	0.9	0.5	0.8	0.6	1.3	1.2	0.7	1.2
1.1	0.7	0.7	0.4	1.3	0.4	0.7	0.8	0.9	0.6	1.0	1.4	0.9	1.3
1.2	0.6	0.9	0.9	1.4	1.1	0.6	0.7	0.4	0.5	1.6	1.5	0.5	1.6
1.3	0.4	0.9	0.5	1.4	1.0	0.9	0.5	0.6	0.6	1.1	1.2	0.8	1.5
1.6	0.5	0.4	0.9	1.0	1.0	0.9	0.7	0.6	0.6	1.4	1.2	0.7	1.0



Draw a frequency table for the data above.