Mean, Median And Mode

Remember the median occurs at the $\left(\frac{n+1}{2}\right)^{\text{th}}$ data point, where n is the number of pieces of data (i.e. the sum of the frequency column). May the Force be with you for the tedium that follows... think of England!

1. For the data set

x	f
1	3
2	7
3	10
4	8
5	3
6	1

find

(a) The mean, $\boxed{\frac{25}{8} = 3.125}$

(b) The median, $\boxed{3}$

(c) The mode. $\boxed{3}$

2. For the data set

x	f
5	3
6	5
7	11
8	10
9	4
10	5

find

(a) The mean, $\boxed{\frac{144}{19} = 7.58 \text{ (to 3sf)}}$

(b) The median, $\boxed{7.5}$

(c) The mode. $\boxed{7}$

3. For the data set

x	f
20	7
25	9
30	21
35	32
40	3
45	1

find

(a) The mean, $\boxed{\frac{2280}{73} = 31.2 \text{ (to 3sf)}}$

(b) The median, $\boxed{32.5}$

(c) The mode. $\boxed{35}$

4. For the data set

x	f
12	1
13	2
14	4
15	8
16	16
17	32

find

(a) The mean, $\boxed{\frac{338}{21} = 16.1 \text{ (to 3sf)}}$

(b) The median, $\boxed{17}$

(c) The mode. $\boxed{17}$

5. For the data set

x	f
-3	4
-2	6
-1	12
0	23
1	10
2	12
3	3

find

(a) The mean, $\boxed{\frac{1}{10} = 0.1}$

(b) The median, $\boxed{0}$

(c) The mode. $\boxed{0}$

6. For the data set

x	f
1	a
2	a
3	a
4	$a+1$
5	a
6	a
7	a

find

(a) The mean, $\boxed{4}$

(b) The median, $\boxed{4}$

(c) The mode. $\boxed{4}$

7. For the data set

x	f
-3	a
-2	$2a$
-1	$3a$
0	$4a$
1	$5a$
2	$6a$
3	$7a$

find

(a) The mean, [1]

(b) The median, [1]

(c) The mode. [3]