

Estimating the mean from a grouped frequency table

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Name: _____



Calculate an **estimate** for the mean of the following sets of data:

NB: Table space is usually given

a)

No. of Pets	Frequency	Midpoint	fx
$0 < x \leq 2$	6	1	6
$2 < x \leq 4$	3	3	9
$4 < x \leq 6$	2	5	10
$6 < x \leq 8$	1	7	7
	12		32

2.67

b)

Shoe size	Frequency	Midpoint	fx
$1 < x \leq 3$	6	2	12
$3 < x \leq 5$	4	4	16
$5 < x \leq 7$	7	6	42
$7 < x \leq 9$	10	8	80
	27		150

5.56

c)

Age	Frequency
$0 < x \leq 2$	5
$2 < x \leq 4$	10
$4 < x \leq 6$	8
$6 < x \leq 8$	6
$8 < x \leq 10$	8
$10 < x \leq 12$	4

5.68

d)

Wins	Frequency
$0 < x \leq 6$	7
$6 < x \leq 12$	8
$12 < x \leq 18$	10
$18 < x \leq 24$	2
$24 < x \leq 30$	7
$30 < x \leq 36$	6

16.8

d)

Weight (kg)	Frequency
$10 < x \leq 16$	7
$16 < x \leq 22$	12
$22 < x \leq 28$	8
$34 < x \leq 40$	10
$40 < x \leq 46$	3
$46 < x \leq 52$	5

28.07

e)

Height (cm)	Frequency
$10 < x \leq 12$	10
$12 < x \leq 14$	14
$14 < x \leq 16$	8
$16 < x \leq 18$	5
$18 < x \leq 20$	3
$20 < x \leq 22$	4

14.5

Exam question:

50 painters painted a wall. The time they took in minutes was recorded. The table shows the results. Calculate an estimate for mean time taken for painters to paint the wall.

Time (m)	Frequency
$0 < x \leq 10$	3
$10 < x \leq 20$	12
$20 < x \leq 30$	20
$30 < x \leq 40$	10
$40 < x \leq 50$	3
$50 < x \leq 60$	2

25.8

