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Date: \_\_\_\_\_

## Maths Stage 4: Discrete & Continuous Data

Sheet 27



In practice, a works-study engineer can use more advanced ways of measuring variability: one such measure is called the **Mean Deviation**.

Machine A	No of rejects	Deviation from mean of 30
Mon	35	5
Tues	26	4
Wed	28	2
Thur	35	5
Fri	26	4
TOTALS	150	20
	Mean $150 \div 5 = 30$	Mean deviation $20 \div 5 = 4$

The **mean deviation** is the average of all the differences between the actual mean value of 30 and the individual figures for each day. No account has been taken for + and - values in this case, as a value of 3 above is the same deviation as a value of 3 below.

Complete the tables for the other machines.

Machine B	No of rejects	Deviation from mean of 30
Mon		
Tues		
Wed		
Thur		
Fri		
TOTALS		
	Mean	Mean deviation

Machine C	No of rejects	Deviation from mean of 30
Mon		
Tues		
Wed		
Thur		
Fri		
TOTALS		
	Mean	Mean deviation

Which machine is the least variable now?