

## Appendix 7.7, Stage 6

Test the hypothesis by comparing  $w$  with the critical value  $w_{crit}$

If the number of samples is less than or equal to 20 then:

Use Table 1 to find the critical value  $w_{crit}$  for the chosen significance level.

If  $w > n(n+1)/2 - w_{crit}$ , the material is exempt (the null hypothesis may be rejected).

Otherwise, the material is not exempt (the null hypothesis must be accepted).

Else, if the number of samples is greater than 20 then:

Calculate  $w_{crit}$  using the equation below.

$$w_{crit} = \frac{N(N+1)}{4} + z_{\alpha} \sqrt{N(N+1)(2N+1)/24}$$

where  $z_{\alpha}$  = the  $\alpha$  percentile of the standard normal distribution (Table *t test*)

If  $w > w_{crit}$ , the material is exempt (the null hypothesis may be rejected).

Otherwise, the material is not exempt (the null hypothesis must be accepted).

Report the values of  $N$ ,  $w$ ,  $w_{crit}$  and the result.