

P-value Applet:  $H_0: \mu = 20$   $H_a: \mu > 20$ ,  $n = 4$ ,  $\sigma = 4$

Repeat: 25 from  $\mu = 20$

25 from  $\mu = 24$

|    | $\bar{x}$ | P     | $< .10$ | $\bar{x}$ | P     | $< .10$ |
|----|-----------|-------|---------|-----------|-------|---------|
| 1  | 19.9      | .5239 |         | 23.8      | .0301 | X       |
| 2  | 19.3      | .6293 |         | 26.1      | .0014 | X       |
|    | 20.9      | .3192 |         | 24        | .0228 | X       |
|    | 20.6      | .3821 |         | 25.8      | .0020 | X       |
|    | 22-       | .1587 |         | 26.3      | .0009 | X       |
|    | 20.7      | .3557 |         | 22.4      | .1190 |         |
|    | 23-       | .0694 | X       | 23.5      | .0401 | X       |
|    | 22.8      | .0793 | X       | 22.6      | .0934 | X       |
|    | 21.1      | .2912 |         | 25.7      | .0023 | X       |
|    | 21.3      | .2643 |         | 24.0      | .0228 | X       |
|    | 19.4      | .9032 |         | 24.-      | .0233 | X       |
|    | 17.3      | .9099 |         | 26.3      | .0008 | X       |
|    | 23.1      | .0606 | X       | 24.8      | .0078 | X       |
|    | 22.9      | .0708 | X       | 24.5      | .0119 | X       |
|    | 24.4      | .0136 | X       | 22.7      | .0918 | X       |
|    | 19.8      | .5319 |         | 22.6      | .0968 | X       |
|    | 21.4      | .2483 |         | 24.3      | .0166 | X       |
|    | 17.7      | .8790 |         | 20.0      | .5000 |         |
|    | 18.8      | .7324 |         | 23.3      | .0505 | X       |
|    | 18.2      | .8166 |         | 22.7      | .0918 | X       |
|    | 17.9      | .8508 |         | 25-       | .0059 | X       |
|    | 19.0      | .6844 |         | 24.1      | .0192 | X       |
|    | 25.1      | .0057 | X       | 20.7      | .3594 |         |
|    | 14.6      | .9963 |         | 25.3      | .0038 | X       |
| 25 | 20.7      | .3557 |         | 26.0      | .0014 | X       |

sig. at .10: 6 of 25 = 24%  
(expected 25 10%)

23 of 25 = 92%

$\mu = 24$

$\mu = 20$

sig. at .10

