

TABLE 6.1: Table of Values for Computing 3σ and Control Limits for Mean and Range Charts

| SAMPLE SIZE | A_2 | D_2 | D_3 | D_4 |
|-------------|-------|-------|-------|-------|
| 2 | 1.880 | 1.128 | ---- | 3.268 |
| 3 | 1.023 | 1.693 | ---- | 2.574 |
| 4 | 0.729 | 2.059 | ---- | 2.282 |
| 5 | 0.577 | 2.326 | ---- | 2.114 |
| 6 | 0.483 | 2.534 | ---- | 2.004 |
| 7 | 0.419 | 2.704 | 0.076 | 1.924 |
| 8 | 0.373 | 2.847 | 0.136 | 1.864 |
| 9 | 0.337 | 2.970 | 0.184 | 1.816 |
| 10 | 0.308 | 3.078 | 0.223 | 1.777 |
| 11 | 0.285 | 3.173 | 0.256 | 1.744 |
| 12 | 0.266 | 3.258 | 0.283 | 1.717 |
| 13 | 0.249 | 3.336 | 0.307 | 1.693 |
| 14 | 0.235 | 3.407 | 0.328 | 1.672 |
| 15 | 0.223 | 3.472 | 0.347 | 1.653 |
| 16 | 0.212 | 3.532 | 0.363 | 1.637 |
| 17 | 0.203 | 3.588 | 0.378 | 1.622 |
| 18 | 0.194 | 3.640 | 0.391 | 1.608 |
| 19 | 0.187 | 3.689 | 0.403 | 1.597 |
| 20 | 0.180 | 3.735 | 0.415 | 1.585 |
| 21 | 0.173 | 3.778 | 0.425 | 1.575 |
| 22 | 0.167 | 3.819 | 0.434 | 1.566 |
| 23 | 0.162 | 3.858 | 0.443 | 1.557 |
| 24 | 0.157 | 3.895 | 0.451 | 1.548 |
| 25 | 0.153 | 3.931 | 0.459 | 1.541 |

SOURCE: Adapted from Institute for Quality and Reliability. http://world-class-quality.com/images/download/20081104091341_Control%20Chart%20Constants%20and%20Formulae.pdf