

## Acceptance Sampling Exercises

**Exercise #1** – This exercise uses Z1.4

The supplier regularly ships widgets, which you use in your product.

Your Quality Engineer has set the following characteristics for these widgets:

Inspection Level: II

AQL: 4.0%

Plans: Single sample

The supplier ships 150 widgets in a lot.

The lot history says we should use Normal Inspection for this lot.

Determine the sample size, the accept number, and the reject number.

*Answer:*

$$n = 20, c = 2, r = 3$$

**Exercise #2** – This exercise uses Z1.4

The supplier regularly ships widgets, which you use in your product.

Your Quality Engineer has set the following characteristics for these widgets:

Inspection Level: II

AQL: 4.0%

Plans: Double sample

The supplier ships 150 widgets in a lot.

The lot history says we should use Normal Inspection for this lot.

Determine the sample size, the accept number, and the reject number.

*Answer:*

$$n_1 = 13, c_1 = 0, r_1 = 3$$

$$n_2 = 13, c_2 = 3, r_2 = 4$$

**Exercise #3** – This exercise uses c=0 sampling plans.

The supplier regularly ships widgets, which you use in your product.

Your Quality Engineer has set the following characteristics for these widgets: AQL: 4.0%

The supplier ships 150 widgets in a lot.

Determine the sample size, the accept number, and the reject number.

*Answer:*  $n = 9, c = 0, r = 1$