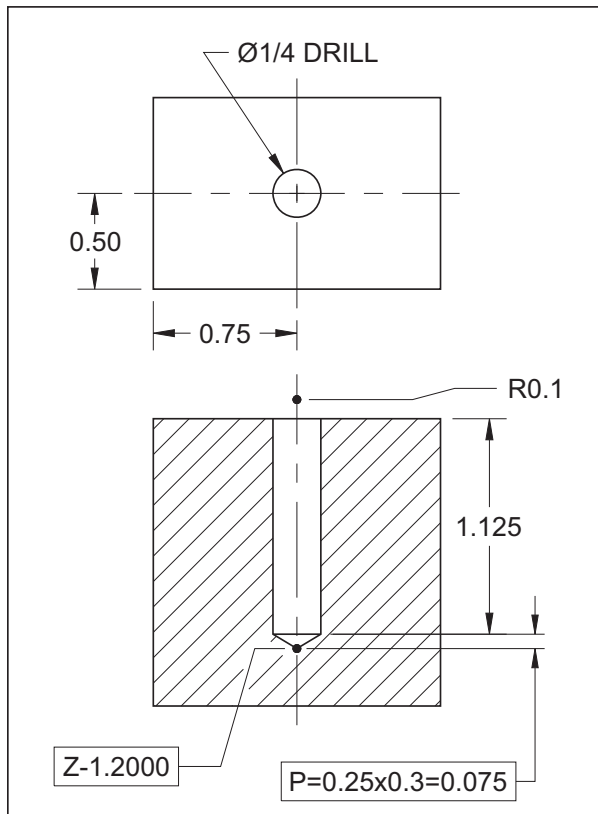


Peck Drilling 2

➡ These are the correct answers for the five questions - with comments listed below:

- ❑ 1 - Drill point length is 0.075
- ❑ 2 - Final Z-depth is Z-1.2
- ❑ 3 - Each Q-depth will be 0.325
- ❑ 4 - All pecks will be equal, so the last peck depth will also be 0.325
- ❑ 5 - G99 G83 X0.75 Y0.5 R0.1 Z-1.2 Q0.325 F8.0



In this project, the Q-value in the fixed cycle G83/G73 has to be *calculated* to achieve a certain number of pecks. As before, we have to calculate the tool point length and add it to the given hole depth (full diameter depth), all in order to calculate the Z-depth for the program. Calculate the tool tip length first:

$$0.25 \times 0.3 = 0.075 \text{ (no rounding required)}$$

This value will be added to the full diameter hole depth, to find the Z-depth for the G83/G73 fixed cycle:

$$0.075 + 1.125 = 1.2000, \text{ programmed as Z-1.2 in the cycle.}$$

Since the Z-axis start position is Z0.1 (R0.1 in the cycle), the total travel length of the tool will be 1.30. The number of required pecks is four, over the total distance to travel, which is 1.30. The result of $1.3/4$ is 0.3250 as the programmed Q-value. Since no rounding is necessary, the Q-value depth will be programmed as Q0.325, and the program entry (in G98 or G99 mode) will be:

G99 G83 X0.75 Y0.5 R0.1 Z-1.2 Q0.325 F8.0