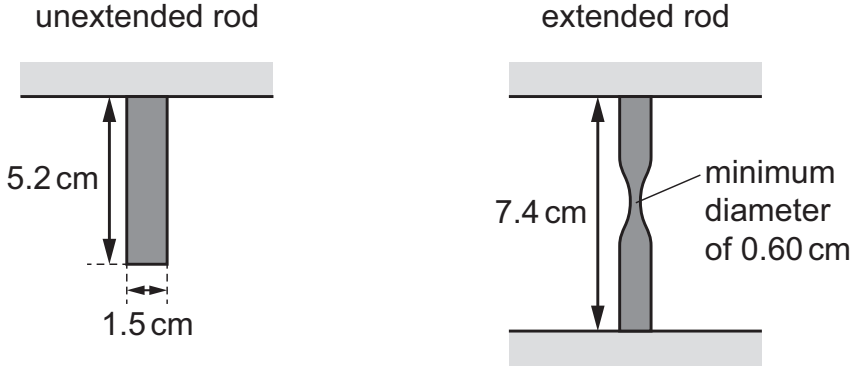
20 A cylindrical steel rod with negligible weight has a diameter of 1.5 cm and a length of 5.2 cm.

The rod is firmly attached at the top end.

The rod is firmly attached to a machine at the other end that applies a constant force of 363 N to the rod.

This causes the rod to extend to a length of 7.4 cm and to have a minimum diameter of 0.60 cm in the position shown.



What is the maximum stress acting on the steel rod when the length is 7.4 cm?

A 2.1×10^6 Pa **B** 3.2×10^6 Pa **C** 5.7×10^6 Pa **D** 1.3×10^7 Pa