

Physics 151 Class Exercise: Elasticity

1. A steel wire 4.5 m long stretches 0.15 cm when it is given a tension of 370 N. **(a)** What is the diameter of the wire? **(b)** If it is desired that the stretch be less than 0.15 cm, should its diameter be increased or decreased? Explain.

Answer:	
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Answer:	
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2. The American naturalist Charles William Beebe (1877–1962) set a world record in 1934 when he made a dive to a depth of 923 m below the surface of the ocean. The dive was made in a device known as the bathysphere, which was basically a steel sphere 4.75 ft in diameter. How much did the volume of the sphere change as it was lowered to its record depth?

Answer:	
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