

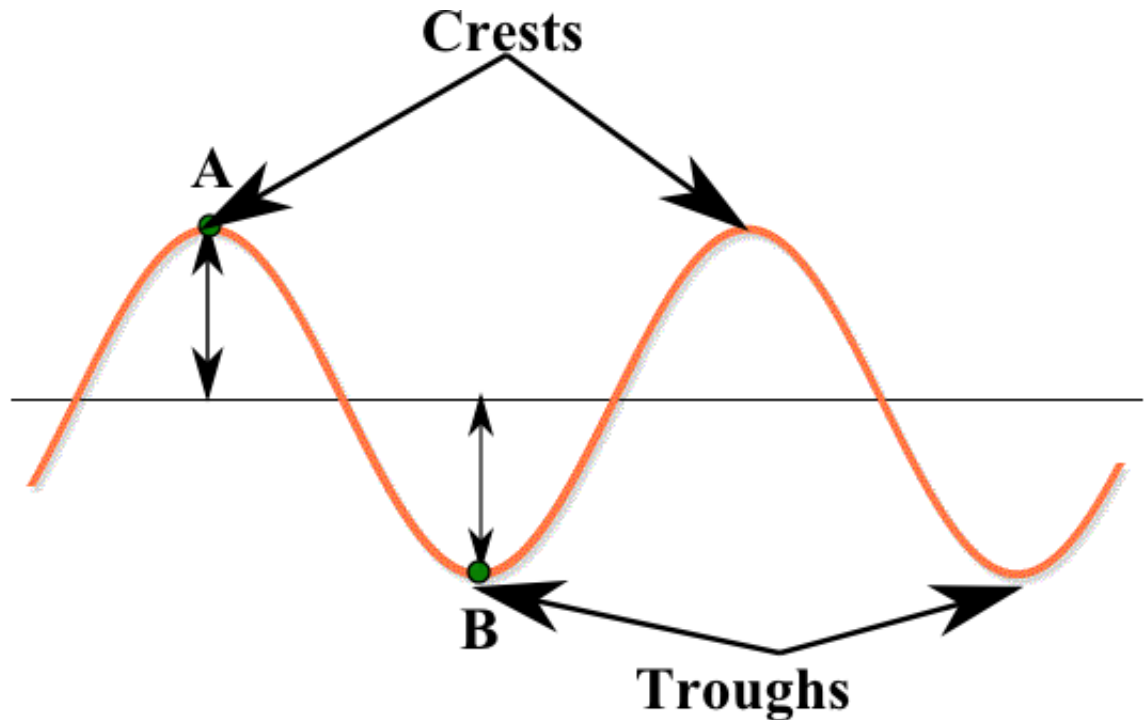
Answer on Question 59463, Physics, Other

Question:

With reference to the diagram, what is the amplitude?

Answer:

Let's draw the diagram of the transverse wave:



The amplitude of a wave refers to the maximum amount of displacement of a particle on the medium from its rest position. Thus, the amplitude is the distance from rest to crest. Similarly, the amplitude can be measured from the rest position to the trough position. As we can see in the diagram above, the amplitude could be measured as the distance of a line segment that is perpendicular to the rest position and extends vertically upward from the rest position to point *A*. But, similarly, we can measure the amplitude as the distance of a line segment that is perpendicular to the rest position and extends vertically downward from the rest position to point *B*.