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PHYS 201 Hwk 1 Ch9 Due 10/31 Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_22. A man holds a 178-N ball in his hand, with the forearm horizontal (see the drawing). He can support the ball in this position because of the flexor muscle force http://edugen.wileyplus.com/edugen/courses/crs6407/cutnell9780470879528/c09/math/math078.gif, which is applied perpendicular to the forearm. The forearm weighs 22.0 N and has a center of gravity as indicated. FindID442_fg09_pr27

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| (a)   | the magnitude of http://edugen.wileyplus.com/edugen/courses/crs6407/cutnell9780470879528/c09/math/math078.gifand |
| (b)   | the magnitude and direction of the force applied by the upper arm bone to the forearm at the elbow joint. |

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|  | 25. A 1220-N uniform beam is attached to a vertical wall at one end and is supported by a cable at the other end. A 1960-N crate hangs from the far end of the beam. Using the data shown in the drawing, find

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| (a)   | the magnitude of the tension in the wire and |

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| (b)   | the magnitudes of the horizontal and vertical components of the force that the wall exerts on the left end of the beam.ID444_fg09_pr25  |

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