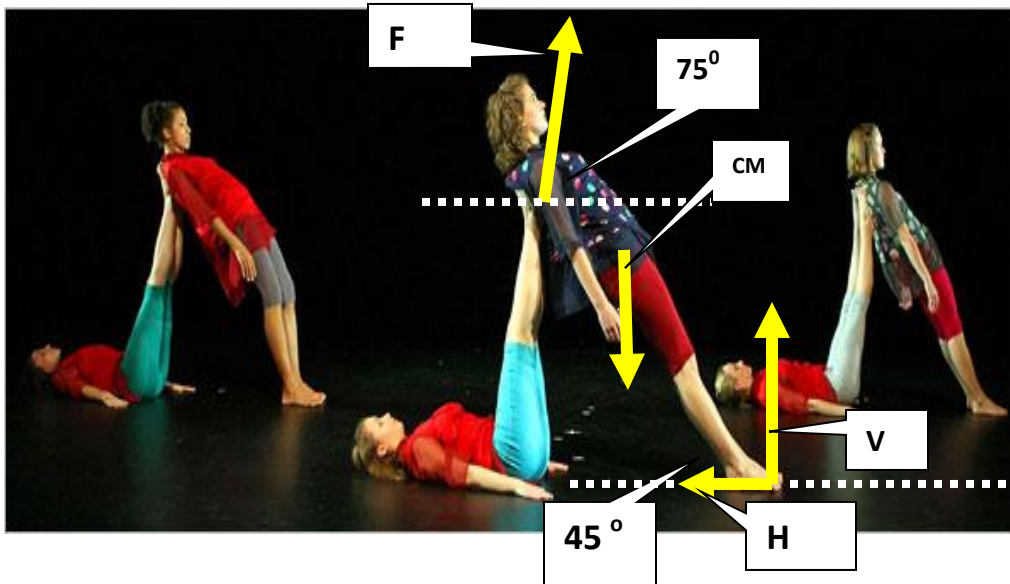


STATIC & ROTATIONAL EQUILIBRIUM Unit 15

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& New York Times April 25, 2009 by Claudia La Rocco

DANCE REVIEW | BARNARD PROJECT

Dramatic Recipe: Four Choreographers, Dozens of Students, Moody Scores



Andrea Mohin/The New York Times

Members of the Barnard Project performed Susan Rethorst's "Hover" at Dance Theater Workshop on Thursday. Ms. Rethorst sampled her old dances in constructing this new work.
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The deal is this: the choreographers get time, space and numerous bodies with which to play; the college students end up in a real live show. Both parties win in the Barnard Project, a collaboration with [Dance Theater Workshop](#) that is presenting the fruits of its fifth-year labors in a run that began on Thursday night.

Introduction: This 150 lb. dancer is 5 feet 6 inches tall(66 inches). Her center of mass(CM) is 33 inches from her feet. She is being pushed(F) 10 inches below the top of her head. The angles are as given.

Question: Find the three forces:F,V(vertical force on her feet), and H(horizontal force on her feet) keeping her in equilibrium? **Answers:** $F = \sim 72.1$ lbs., $H = \sim 18.7$ lbs., $V = \sim 80.35$ lbs