

14) 40 kg Brett ran 50 m in 5 seconds. How much KE did she have while running? (5pts)

15) A 55 kg diver jumps up leaving the 9 m high diving board moving 2 m/s. How fast will he be moving when he hits the water?

16. Mason jumps leaving the ground at 2.1 m/s. Assuming no energy loss, how high does he go based on energy?

17. A physics book has a mass of 2 kg. Find the work done if....

Note: Please explain your answers or show your work. (5 pts. Each)

a) the book is lifted to a height of 5 m.

b) the book is then carried a distance of 9 m at a constant velocity.

c) the book is lifted up from the floor to a table 105 m high and then pushed with a force of 20 N across the table a distance of 5 m.

d) Buffy, who has a mass of 40 kg, stands on the book for 5 minutes.