



4. The physical fitness of a patient is often measured by the patient's maximum oxygen uptake. The mean maximum oxygen uptake for cardiac patients who regularly participate in sports or exercise programs was found to be 24.1 with a standard deviation of 6.30. Assuming this distribution is normal, answer the following:

(a) What is the probability that a cardiac patient who regularly participates in sports has a maximum oxygen uptake of at least 20?

(b) What is the probability that a cardiac patient who regularly exercises has a maximum oxygen uptake of 10.5 or lower?

(c) Consider a cardiac patient with a maximum cardiac uptake of 10.5. Is it likely that this patient participates in sports or exercise programs? Explain.



