

9. The pulse rate, $P(t)$, of a runner, t -minutes after he finishes training, is given by

$$P(t) = 90 \times 3^{-0.25t} + 50.$$

- (i) Sketch the graph of $P(t)$ using the values of $t = 0, 2, 4, 6, 8, 10$ min.
- (ii) Find the pulse rate immediately after finishing training.
- (iii) How long did it take for his pulse rate to drop to
 - (a) 70 beats per minute
 - (b) 55 beats per minute?
- (iv) What is the runner's normal pulse rate? Explain your answer.

