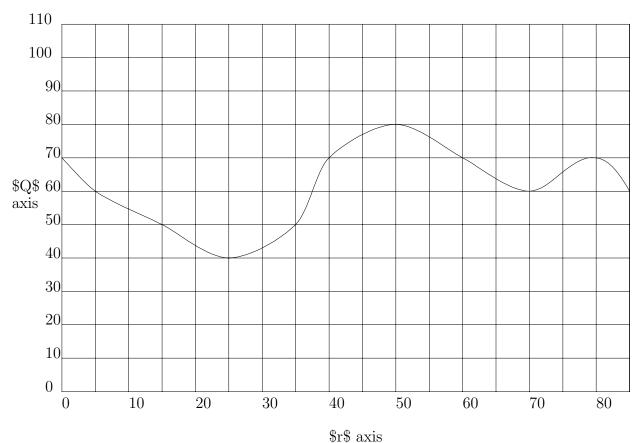
A function Q = f(r) is given by the graph below.



1. What are the following numbers:

(a) 
$$f(15) =$$

(b) 
$$f(50) =$$

(c) 
$$f(65) =$$

(d) 
$$f(57) =$$

2. Solve the following

(a) 
$$f(r) = 40$$

$$r =$$

(b) 
$$f(r) = 60$$

$$r = \underline{\hspace{1cm}}$$

3. What is the largest that Q = f(r) becomes on the interval  $1 \le r \le 9.5$ ?

4. For that value of r is Q = f(r) the largest?