

(11)

$$S = \frac{+ \log 4}{\log 4 + \log((|c| + |2c|^{1/4})^{3/4})} \checkmark$$

$$= \frac{+ \log 4}{\log 4 + \frac{3}{4} \log(|c|(1 + |2/c|^3)^{1/4})} \checkmark$$

as $|c|$ becomes large

$$(2/|c|)^3 \rightarrow 0 \checkmark$$

$$\text{so } S \rightarrow \frac{+ \log 4}{\log 4 + \frac{3}{4} \log |c|} \rightarrow \frac{4 \log 4}{3 \log |c|} \checkmark$$

and this is the limiting value for S since it is the limiting value for upper and lower bounds.

4 You need to state that the sets $S_i(A)$ for $i = 1, 6, 4$ have to be disjoint in order to use Proposition 9.7.

$$\frac{14}{25}$$