

3 - Exercises

Wednesday, September 9, 2015 7:06 AM

(1) Show π_n^s takes cofiber sequences of pointed spaces to long exact sequences (use homotopy excision)

(2) Argue that if $X \in Sp$

$$\pi_n X \cong \varinjlim_i \pi_{n+i}^s X_i$$

(stable homotopy sp)

(3) Deduce that

π_n takes cofiber sequences of spectra to long exact sequences.

(4) Verify that if X is a CW spectrum, then the cofiber sequences

$$X^{[k-1]} \rightarrow X^{[k]} \rightarrow \bigvee S^k$$

k-cells
of E

(as chined in wtes)

(5) Verify $k \in \text{Top}_0$
 $x \in Sp$

$$X \wedge \Sigma^{\infty} K \simeq X \wedge K$$

$$F(\Sigma^{\infty} K, X) \simeq X^k$$