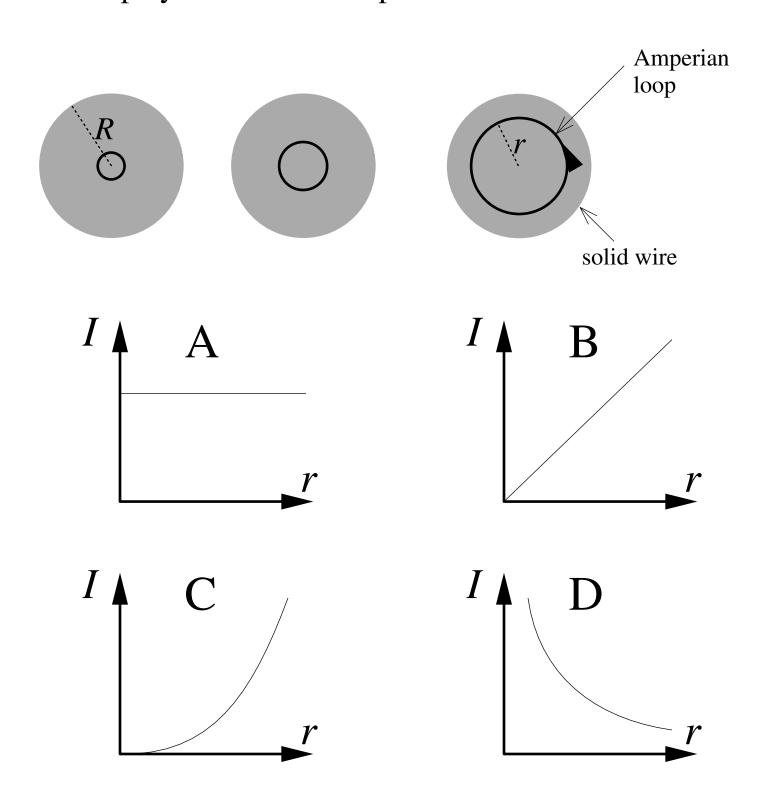
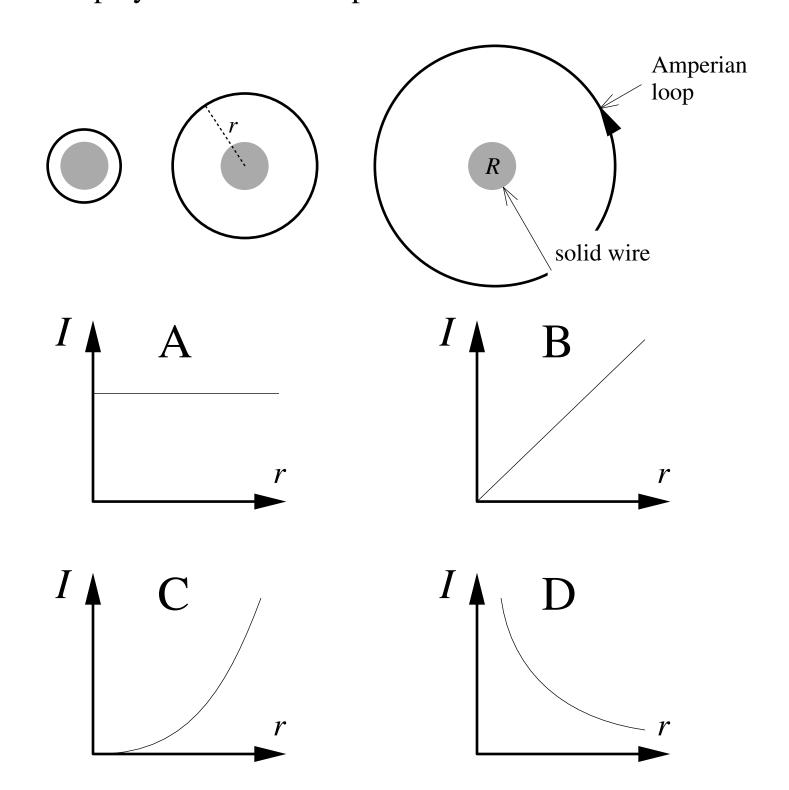
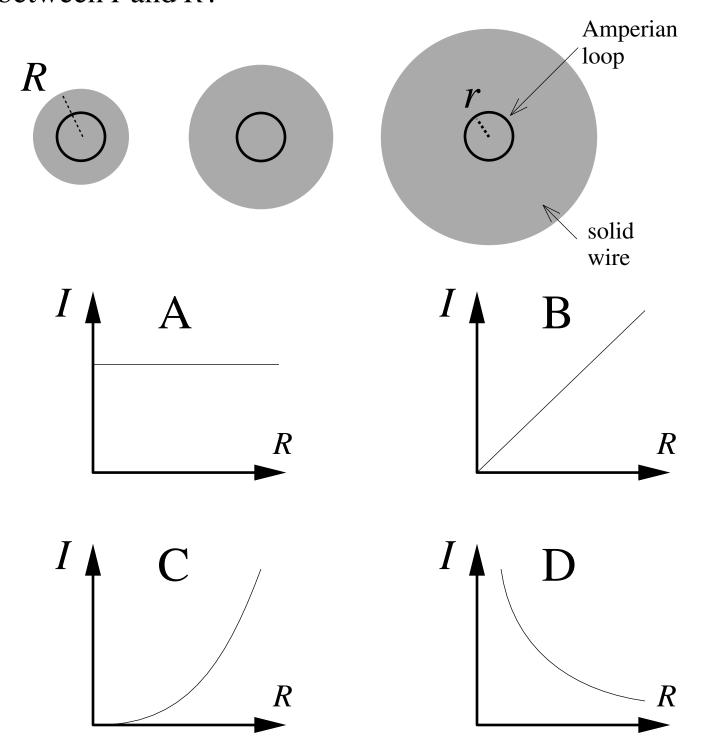
The below figure shows, in cross section, three identical solid cylindrical wires of radius (R) carrying a current I distributred uniformly throughout the cross section. Also shown is three Amperian loops; The three have <u>differing</u> radius (r). What is the magnitude of the current I through these loops as a function of r? Which of the below plots best displays the relationship between I and r?



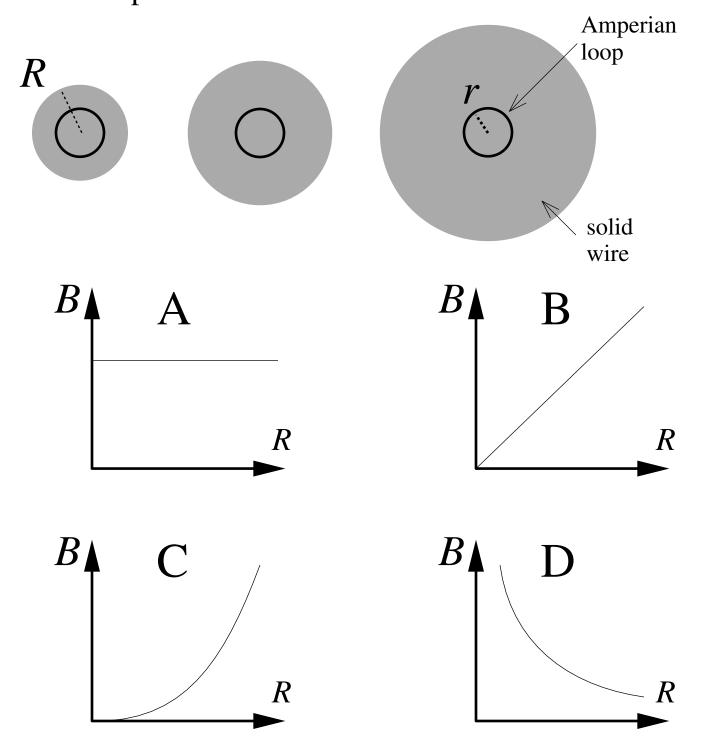
The below figure shows, in cross section, three identical solid cylindrical wires of radius (R) carrying a current I distributred uniformly throughout the cross section. Also shown is three Amperian loops; The three have <u>differing</u> radius (r). What is the magnitude of the current I through these loops as a function of r? Which of the below plots best displays the relationship between I and r?



The below figure shows, in cross section, three solid cylindrical wires of <u>differing</u> radius (R) but all carrying the same current I distributed uniformly throughout the cross section. Also shown is three Amperian loops; The three have the same radius (r). What is the magnitude of the current I through these loops as a function of R? Which of the below plots best displays the relationship between I and R?



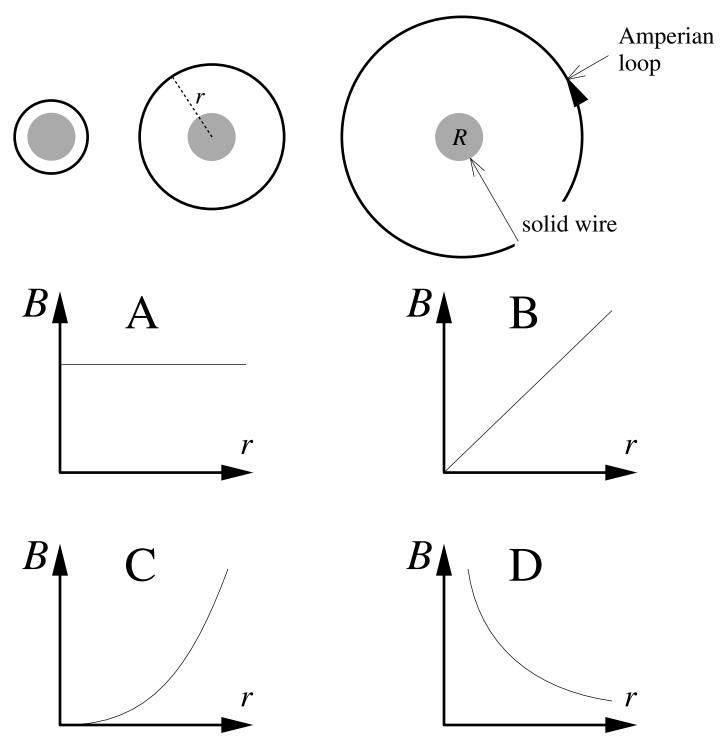
The below figure shows, in cross section, three solid cylindrical wires of <u>differing</u> radius (R) but all carrying the same current I distributred uniformly throughout the cross section. Also shown is three Amperian loops; The three have the same radius (r). What is the magnitude of the magnetic field B around these loops as a function of R? Which of the below plots best displays the relationship between B and R?

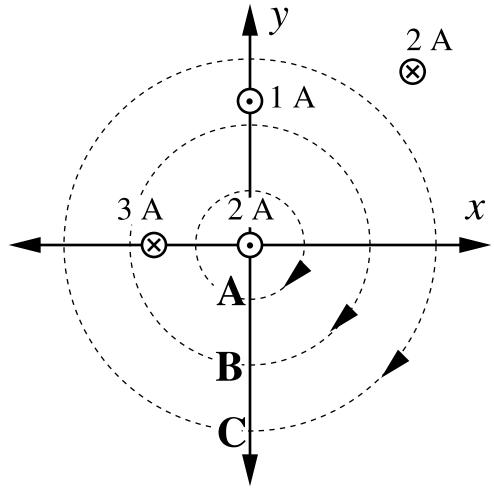


The below figure shows, in cross section, three solid cylindrical wires of <u>differing</u> radius (R) but all carrying the same current I distributred uniformly throughout the cross section. Also shown is three Amperian loops; The three have the same radius (r). What is the magnitude of the magnetic field B around these loops as a function of R? Which of the below plots best displays the relationship between B and R?

relationship between *B* and *R*? Amperian loop  $\boldsymbol{B}$ R  $\boldsymbol{B}$ 

The below figure shows, in cross section, three identical solid cylindrical wires of radius (R) carrying a current I distributred uniformly throughout the cross section. Also shown is three Amperian loops; The three have differing radius (r). What is the magnitude of the magnetic field B through these loops as a function of r? Which of the below plots best displays the relationship between B and r?





Which amperian loop encloses the most current (positive numbers are larger than negative numbers)