$4 \xi=\{1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21\}$
$\mathrm{A}=$ Prime numbers
B $=$ Factors of 21

(a) Complete the Venn diagram shown above.

One of the numbers is chosen at random.
(b) Find the probability that the number is in $\mathrm{A} \cup \mathrm{B}$
(c) Find the probability that the number is in $(\mathrm{A} \cup \mathrm{B})^{\prime}$

