

- 3 Redbury United soccer team play a match every week. Each match can be won, drawn or lost. At the beginning of the soccer season the probability that Redbury United win their first match is $\frac{3}{5}$, with equal probabilities of losing or drawing. If they win the first match, the probability that they win the second match is $\frac{7}{10}$ and the probability that they lose the second match is $\frac{1}{10}$. If they draw the first match they are equally likely to win, draw or lose the second match. If they lose the first match, the probability that they win the second match is $\frac{3}{10}$ and the probability that they draw the second match is $\frac{1}{20}$.

- (i) Draw a fully labelled tree diagram to represent the first two matches played by Redbury United in the soccer season. [2]

- (ii) Given that Redbury United win the second match, find the probability that they lose the first match. [4]

.....

.....

.....

.....

.....

.....

.....

.....

.....