The following exercises will be discussed on July 11th.

Exercise 9-1   **Bisimilarity of Sequential Processes**

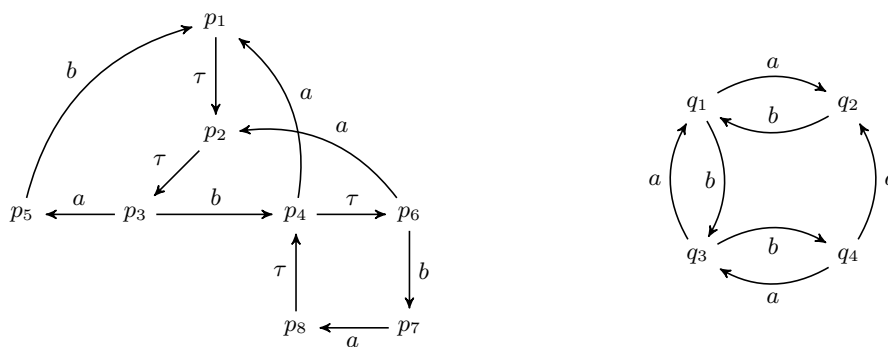Consider the following CCS definitions

$$P \triangleq a.P_1$$
$$P_1 \triangleq b.P + c.P$$
$$Q \triangleq a.Q_1$$
$$Q_1 \triangleq b.Q_2 + c.Q$$
$$Q_2 \triangleq a.Q_3$$
$$Q_3 \triangleq b.Q + c.Q_2 \ .$$

Show that $P \sim Q$ holds by giving

1. ... an appropriate strong bisimulation relation.

2. ... a winning strategy for the defender.

Exercise 9-2   **Weak Bisimilarity**

Given the following labelled transition system:

Show that $p_1 \not\approx q_1$.