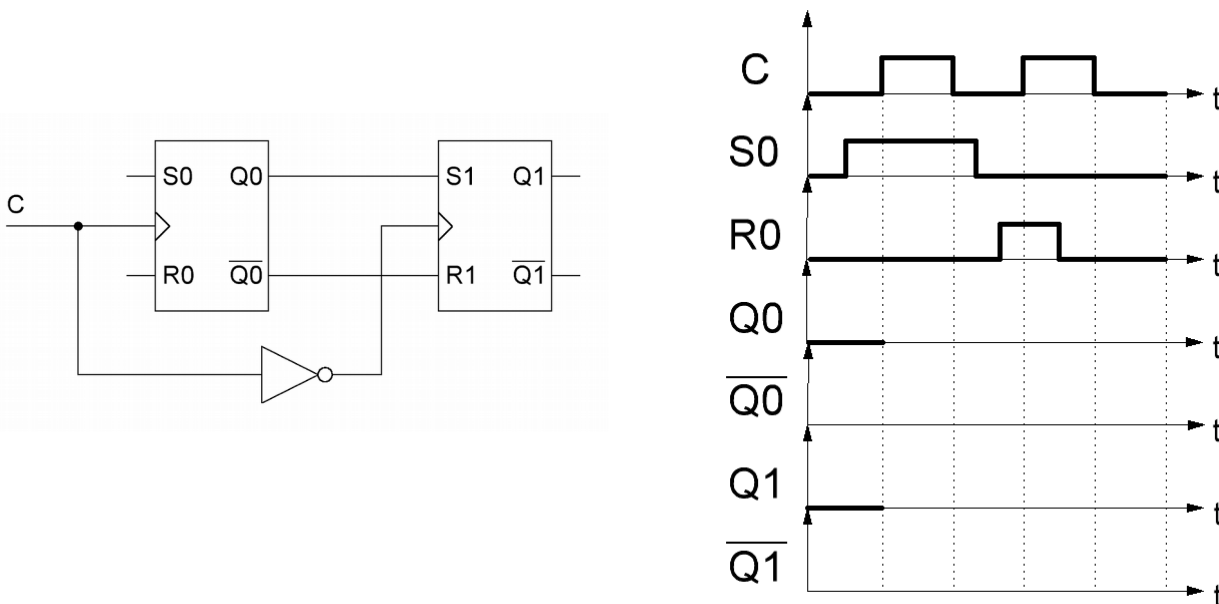


# T.D. 3

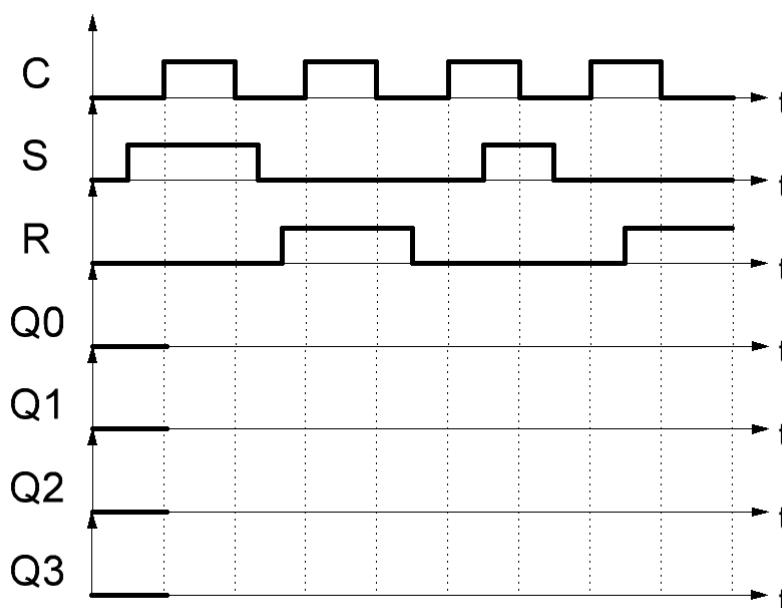
## Les bascules

### Exercice 1 : Bascules RS

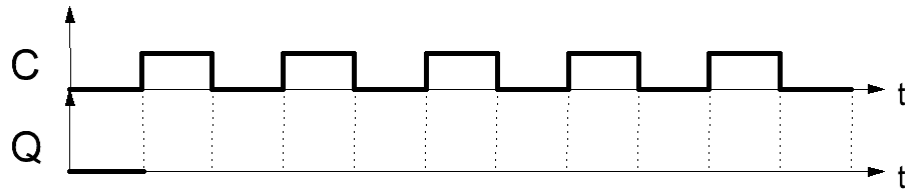
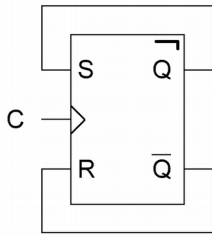
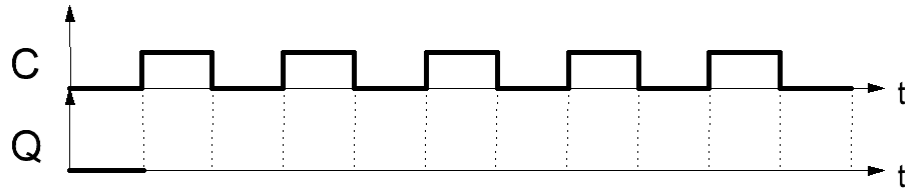
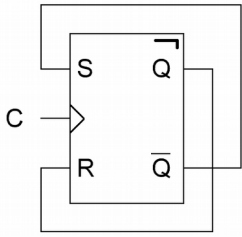
1. Complétez le chronogramme du circuit ci-dessous. Si l'on considère la totalité de ce circuit comme une seule bascule RS, quel est son mode de synchronisation ?



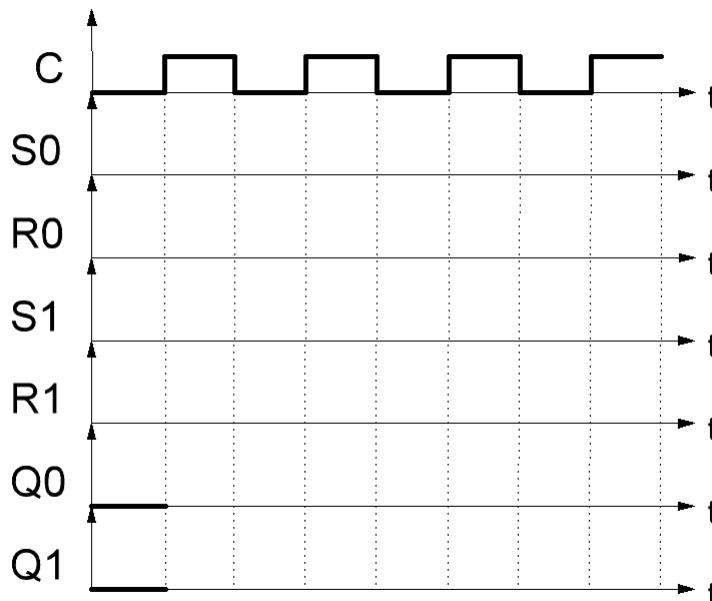
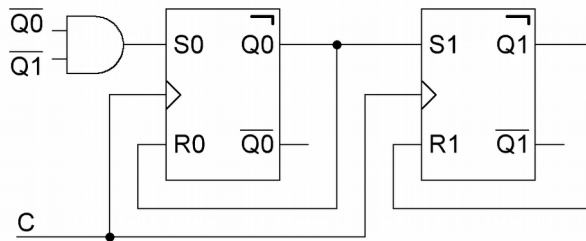
2. Complétez les chronogrammes suivants selon que la bascule RS est synchronisée sur état haut ( $Q0$ ), sur front montant ( $Q1$ ), sur front descendant ( $Q2$ ) et sur impulsion ( $Q3$ ).

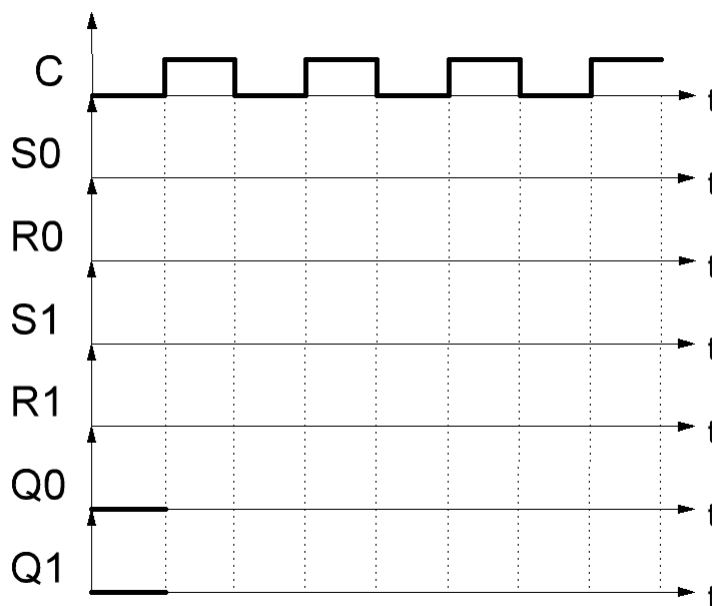
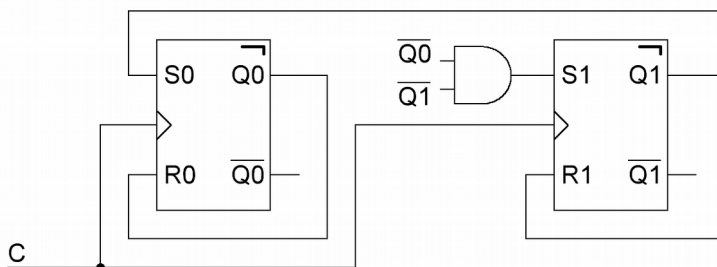
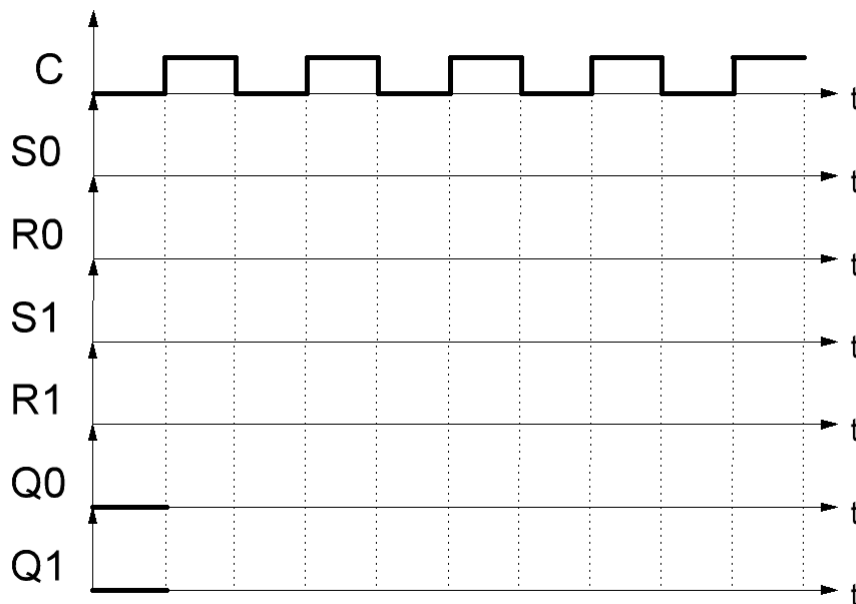
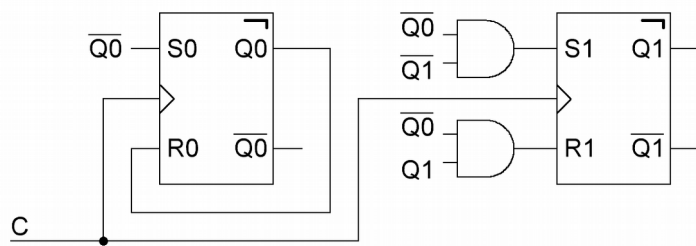


3. Tracez le chronogramme de la sortie  $Q$  pour chacun des deux circuits ci-dessous. Dans le premier circuit, quel est le rapport entre la fréquence de  $Q$  et celle de  $C$ ? Comment appelle-t-on ce montage?



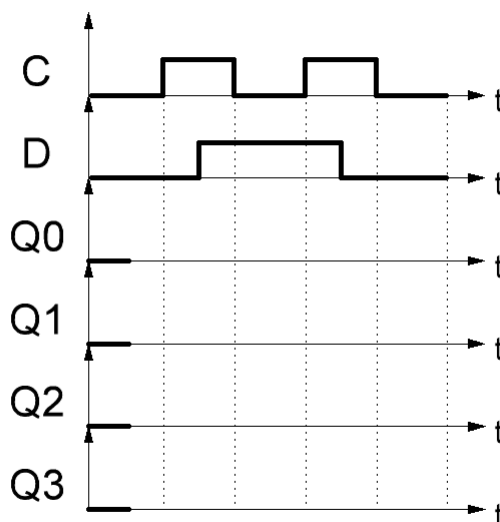
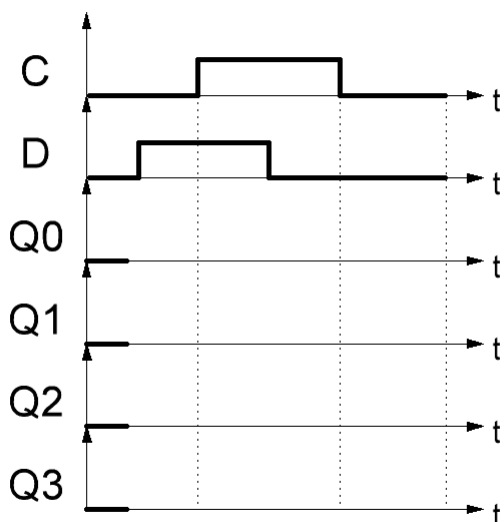
4. Complétez les chronogrammes des circuits ci-dessous.



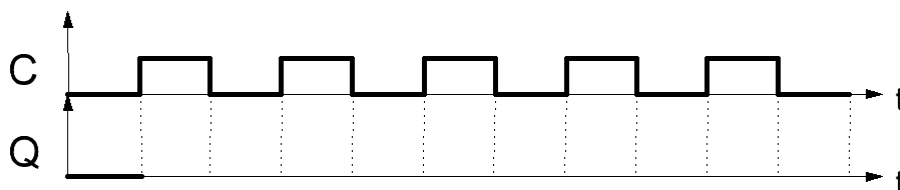
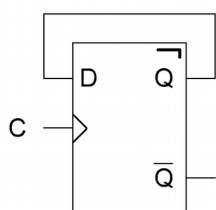
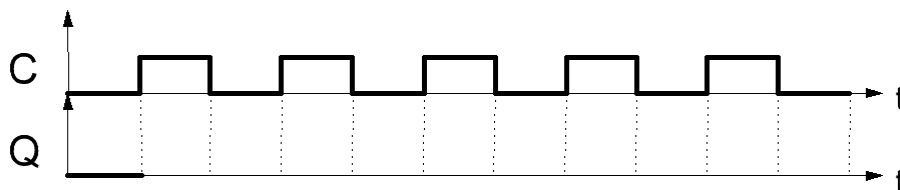
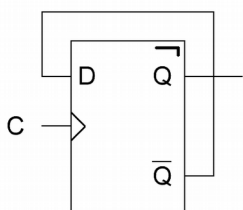


**Exercice 2 : Bascules D**

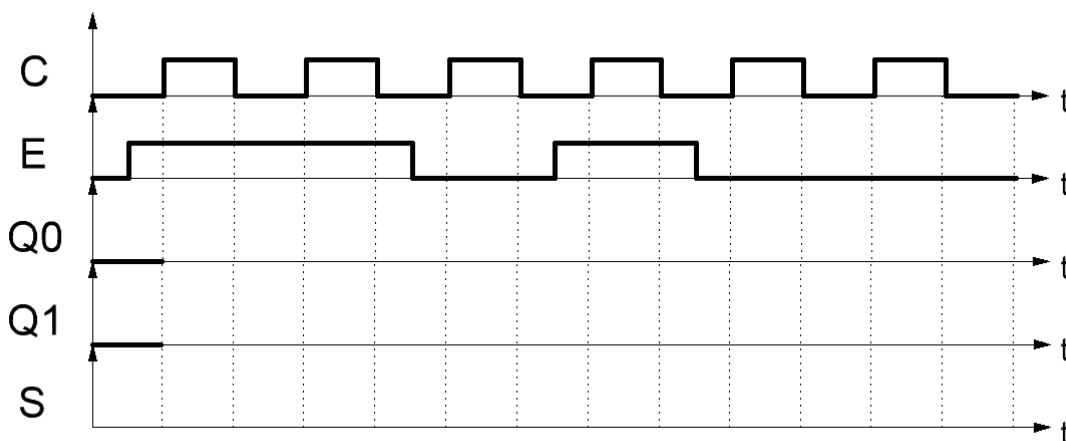
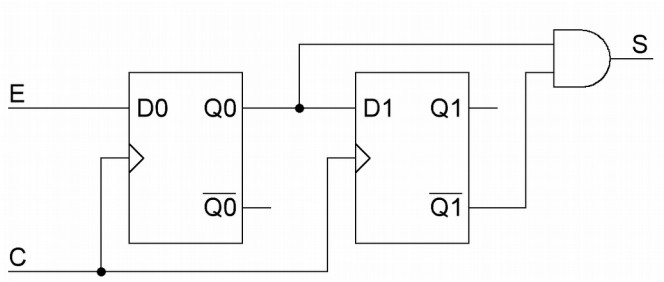
1. Complétez les chronogrammes suivants selon que la bascule D est synchronisée sur état haut (Q0), sur front montant (Q1), sur front descendant (Q2) et sur impulsion (Q3).



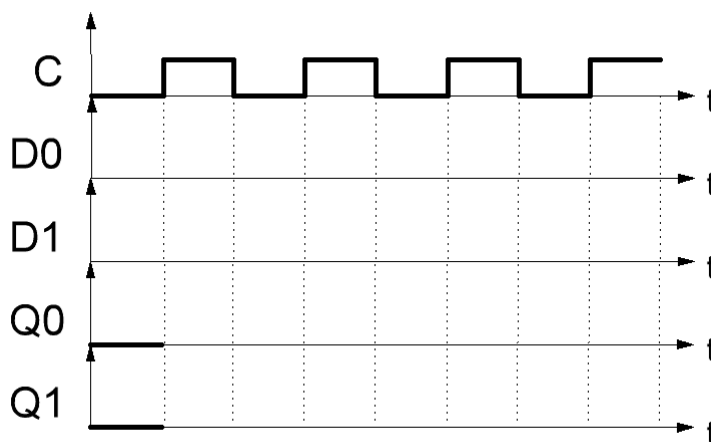
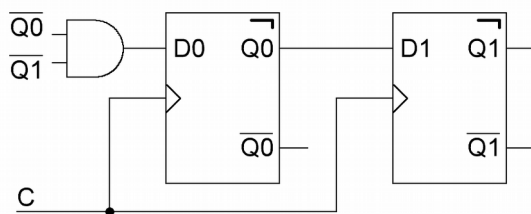
2. Tracez le chronogramme de la sortie Q pour chacun des deux circuits ci-dessous.

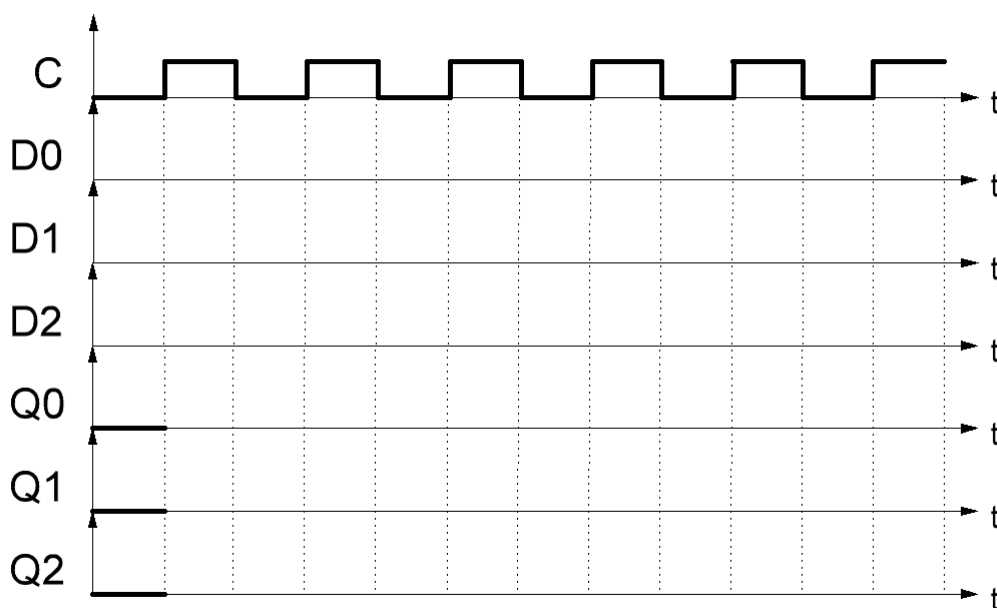
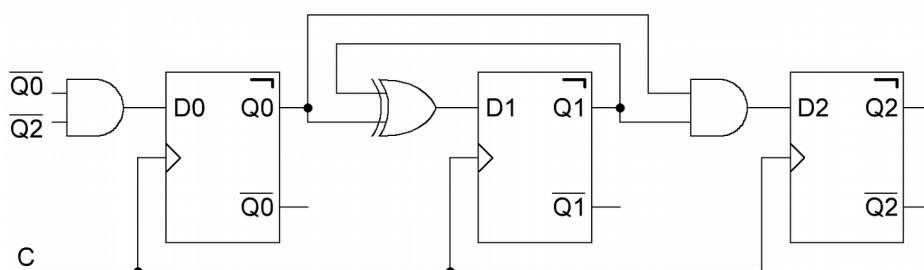
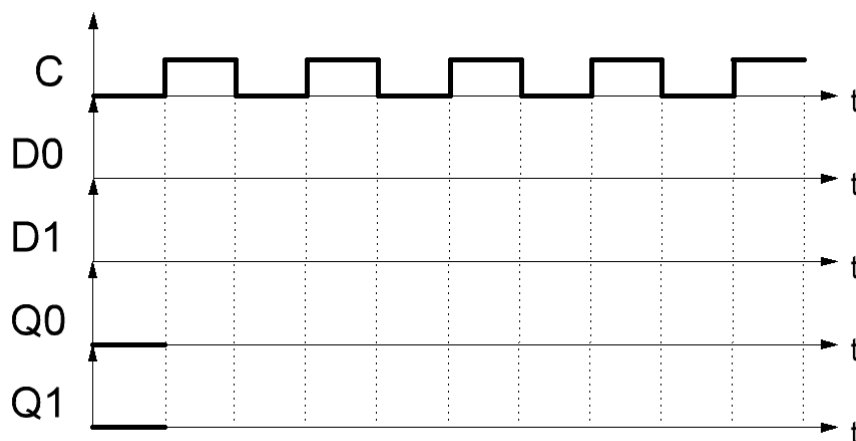
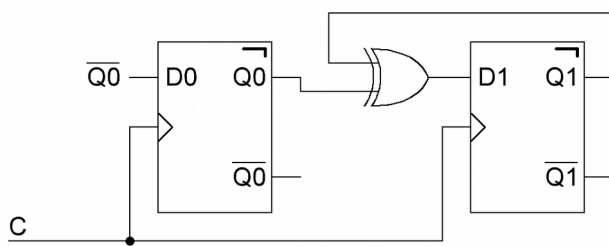


3. Complétez le chronogramme du circuit suivant.



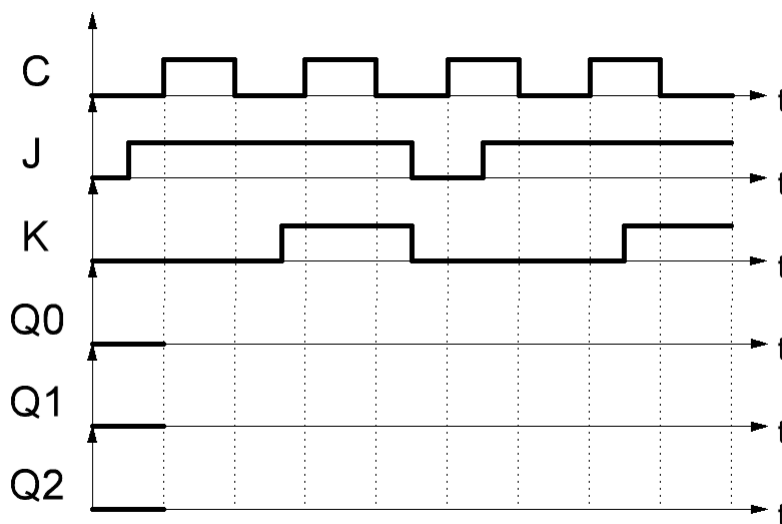
4. Complétez les chronogrammes des circuits ci-dessous.



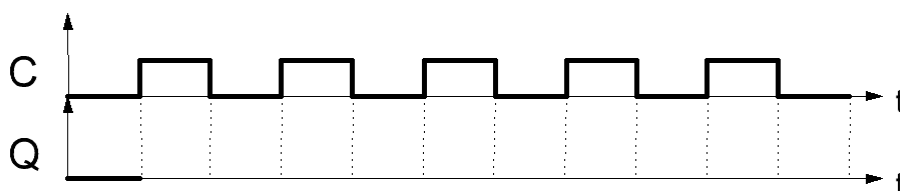
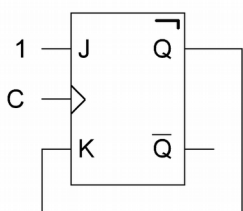
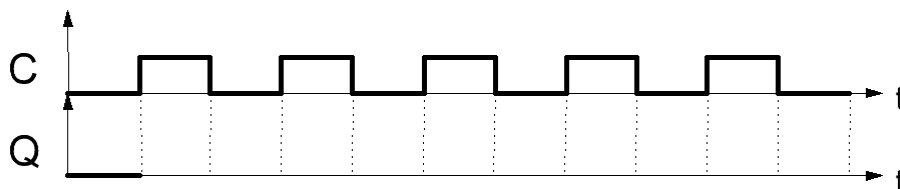
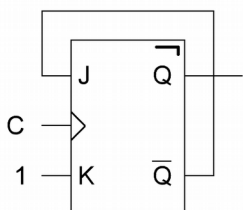


### Exercice 3 : Bascules JK

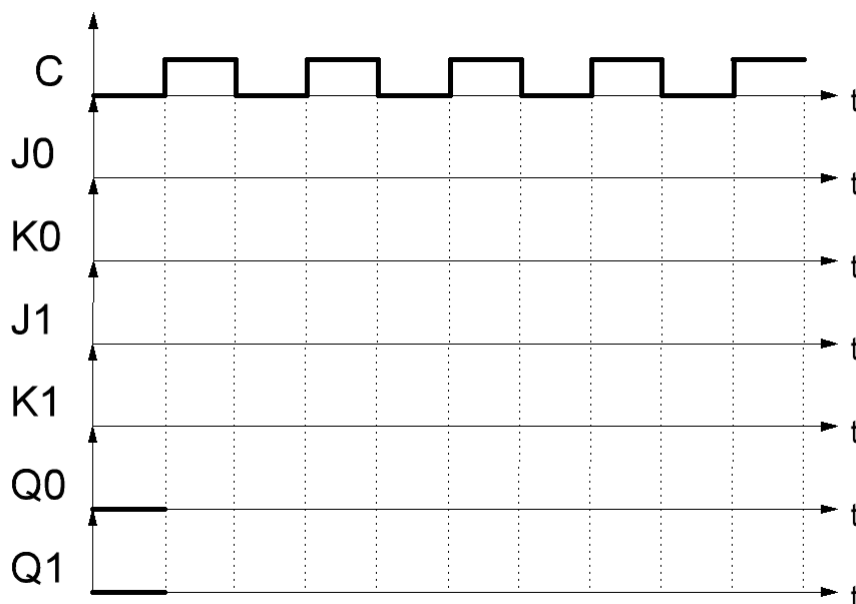
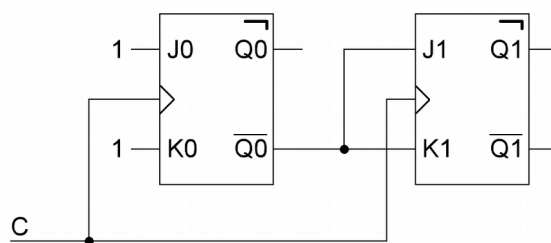
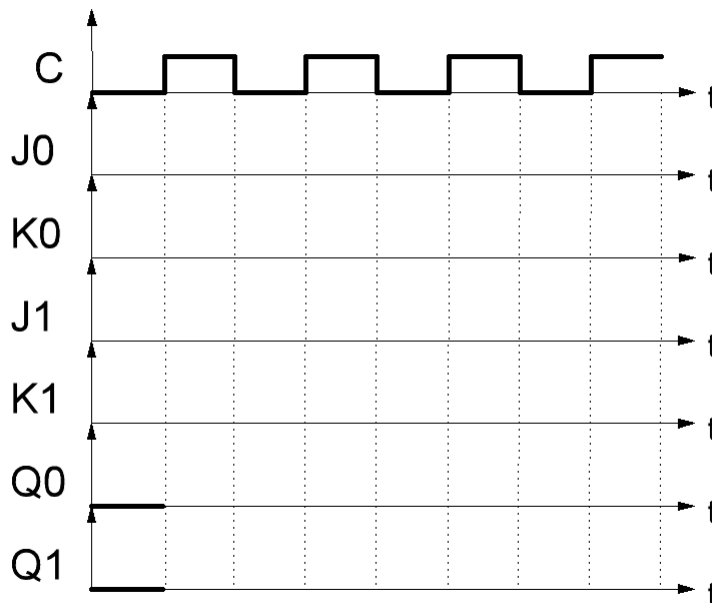
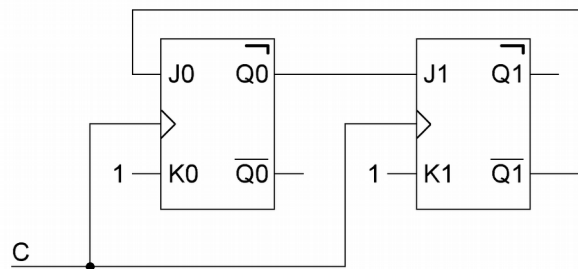
1. Complétez les chronogrammes suivants selon que la bascule JK est synchronisée sur front montant ( $Q0$ ), sur front descendant ( $Q1$ ) et sur impulsion ( $Q2$ ).



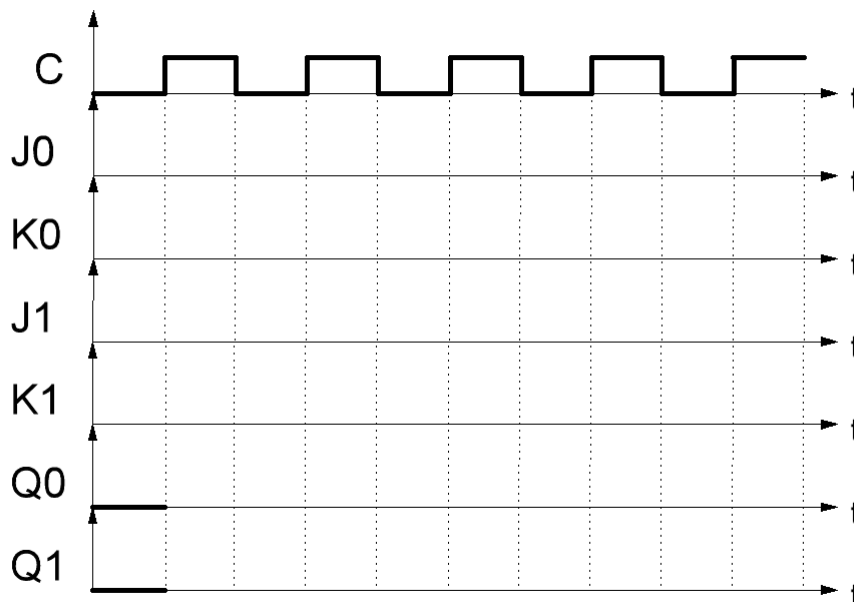
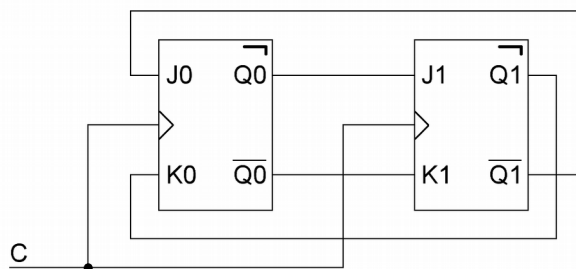
2. Tracez le chronogramme de la sortie  $Q$  pour chacun des deux circuits ci-dessous. Quel est le rapport entre la fréquence de  $Q$  et celle de  $C$  ? Comment appelle-t-on ces montages ? Trouvez une autre façon d'obtenir le même rapport entre ces deux fréquences.



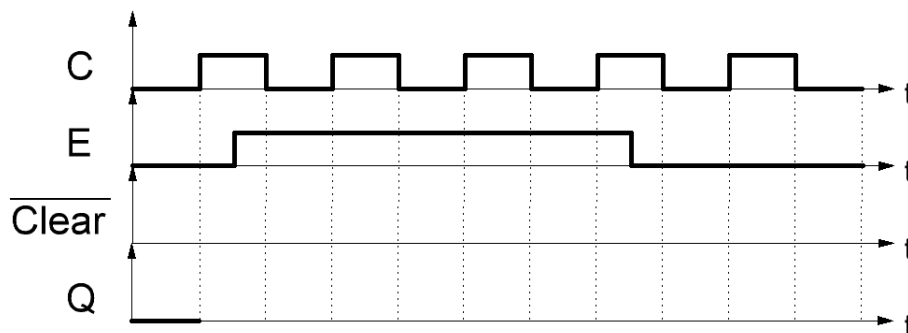
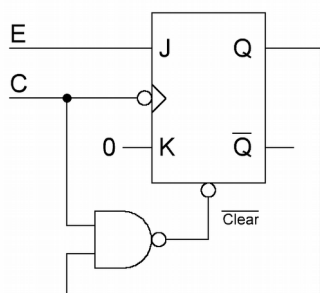
3. Complétez les chronogrammes des circuits ci-dessous.







4. Complétez le chronogramme du circuit ci-dessous.



5. Complétez le chronogramme du circuit ci-dessous.

