V. Exercises Representation Theory

16. Exercise: Let Q be the quiver

$$1 \longrightarrow 2 \longleftarrow 3 \longleftarrow 4$$
$$\searrow$$
$$5$$
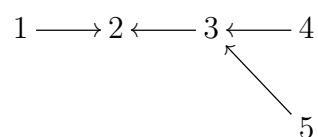
Knit the Auslander-Reiten quiver of Q, and determine in this the projectives and their radicals, and the injectives and their socles. **12 P.**

17. Exercise: Let Q be the quiver

$$1 \longrightarrow 2 \longrightarrow 3 \longleftarrow 4 \longleftarrow 5$$
$$\uparrow$$
$$6$$
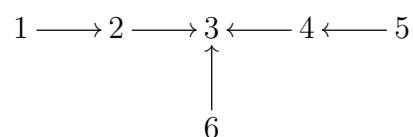
Knit the Auslander-Reiten quiver of Q (with its 36 vertices), and determine in it the projectives and their radicals, and the injectives and their socles. **18 P.**

Submission of solutions: Until Jan 29, 2013 (in the offices of L. Angeleri or D. Kussin)