

MATH 206A: SYMMETRIC FUNCTIONS HOMEWORK #5

- The homework is due on Gradescope on *Monday, November 7th at 4pm*. Late homework is generally not accepted (unless you have a good reason).
- The lowest homework score will be dropped.
- Each problem is worth the same number of points.
- Collaboration is encouraged, but you have to write up the solutions by yourself. For each problem, all sources and collaborators must be clearly listed.
- \LaTeX is much preferred (hand-drawn pictures may be scanned). Alternatively, please submit good quality scans of your work.
- Justify your answers by rigorous proofs.

Solve the following exercises from [Sta99]:

- Exercise 7.28 (all parts).
- Exercise 7.30 (a,b).
- Exercise 7.36.

REFERENCES

- [Sta99] Richard P. Stanley. *Enumerative combinatorics. Vol. 2*, volume 62 of *Cambridge Studies in Advanced Mathematics*. Cambridge University Press, Cambridge, 1999.