

## Handout 4: $i$ Spy and Some Leftover R & D

1. Simplify:  $3\sqrt{-8}$ .

6. Simplify:  $(3 + 4i)(2 - 2i)$ .

2. Simplify:  $\sqrt{-81} - \sqrt{100}$ .

7. Simplify completely:  $\frac{7}{\sqrt{2}}$ .

3. Simplify:  $i^{101}$ .

8. Simplify completely:  $\frac{6}{\sqrt{2}}$ .

4. Simplify:  $\frac{24i^4i^5}{6i^3}$ .

9. Simplify completely:  $\frac{3\sqrt{6}}{\sqrt{7}}$ .

5. Simplify:  $(14 + 2i) - (6 - 5i)$ .

10. Simplify completely:  $\left(\frac{7}{\sqrt{2}}\right)\left(\frac{6}{\sqrt{6}}\right)$ .