

(C1-1.7) Name:

Homework Questions 7 – Manipulating Surds

1. Simplify the following surds

a) $\sqrt{48}$

b) $\sqrt{75}$

c) $\sqrt{147}$

d) $\sqrt{1575}$

2. Write the following surds as simply as possible

a) $2\sqrt{12}$

b) $4\sqrt{24}$

c) $5\sqrt{18}$

d) $2\sqrt{27}$

3. Simplify the following surds

a) $\sqrt{5} + 3\sqrt{5} + 6\sqrt{5}$

b) $5\sqrt{2} + 7\sqrt{2} - 4\sqrt{2} + 5\sqrt{2}$

c) $\sqrt{28} + \sqrt{63} - \sqrt{112}$

d) $\sqrt{50} - \sqrt{72} + \sqrt{18} - \sqrt{32}$

e) $4\sqrt{3} + 5\sqrt{2} - 6\sqrt{2} - 3\sqrt{3}$

f) $\frac{\sqrt{6}}{\sqrt{2}}$

g) $\frac{5\sqrt{24}}{2\sqrt{50}}$