

Simplifying Surds

Name:	Class:	Date:
Mark		/ 10 %

1) Simplify the following

[8]

a) $3\sqrt{10} + 6\sqrt{10}$

b) $5\sqrt{2} + 2\sqrt{2}$

c) $\sqrt{45}$

d) $\sqrt{98}$

e) $\sqrt{6} \times \sqrt{14}$

f) $\sqrt{6} \times \sqrt{21}$

g) $9\sqrt{75} - 4\sqrt{3}$

h) $4\sqrt{2} - 2\sqrt{18}$

2) Expand and simplify the following

[2]

a) $(6 + \sqrt{3})(2 - \sqrt{7})$

b) $(5\sqrt{a} + 7\sqrt{x})(5\sqrt{a} - 7\sqrt{x})$

Solutions for the assessment Simplifying Surds

1) a) $9\sqrt{10}$

b) $7\sqrt{2}$

c) $3\sqrt{5}$

d) $7\sqrt{2}$

e) $2\sqrt{21}$

f) $3\sqrt{14}$

g) $41\sqrt{3}$

h) $-2\sqrt{2}$

2) a) $12 - 6\sqrt{7} - \sqrt{21} + 2\sqrt{3}$

b) $25a - 49x$