

## Square Roots and Operations with Radicals

### Worksheet

1. Express each of the following radicals in their simplest form:

a)  $\sqrt{12}$

b)  $\sqrt{20}$

c)  $\sqrt{18}$

d)  $\sqrt{27}$

e)  $\sqrt{98}$

f)  $\sqrt{72}$

g)  $\sqrt{125}$

h)  $\sqrt{396}$

i)  $\sqrt{363}$

j)  $2\sqrt{44}$

k)  $7\sqrt{128}$

l)  $4\sqrt{300}$

2. Perform the following operations and simplify all radicals:

a)  $(\sqrt{2})(\sqrt{5})$

b)  $(3\sqrt{2})(\sqrt{6})$

c)  $(\sqrt{8})(\sqrt{6})$

d)  $\frac{\sqrt{72}}{\sqrt{6}}$

e)  $\frac{\sqrt{50}}{\sqrt{5}}$

f)  $\frac{27\sqrt{490}}{9\sqrt{5}}$

g)  $(\sqrt{8})\left(\sqrt{\frac{1}{2}}\right)$

h)  $(2\sqrt{15})(3\sqrt{30})$

i)  $(6\sqrt{2})(6\sqrt{18})$

j)  $\left(\sqrt{\frac{2}{5}}\right)\left(\sqrt{\frac{9}{2}}\right)\left(\sqrt{\frac{10}{3}}\right)$

k)  $\frac{\sqrt{7}}{\sqrt{63}}$

l)  $\frac{24\sqrt{56}}{6\sqrt{7}}$