

SIMPLIFY SQUARE ROOTS

COMPLEX NUMBERS INCLUDED

SIMPLIFY THE FOLLOWING SQUARE ROOTS

$\sqrt{18}$	$\sqrt{24}$	$\sqrt{196}$
$3\sqrt{2}$	$2\sqrt{6}$	14
$\xrightarrow{\quad}$	$\xrightarrow{\quad}$	$\xrightarrow{\quad}$
$2\sqrt{18}$ $\underline{36}$ 3	$2\sqrt{24}$ $\underline{212}$ $\underline{216}$ 3	$2\sqrt{196}$ $\underline{196}$ 14

SIMPLIFY THE FOLLOWING SQUARE ROOTS

$\sqrt{240}$	$\sqrt{72}$	$\sqrt{440}$
$4\sqrt{15}$	$6\sqrt{2}$	$12\sqrt{10}$
$\xrightarrow{\quad}$	$\xrightarrow{\quad}$	$\xrightarrow{\quad}$
$2\sqrt{240}$ $\underline{2120}$ $\underline{260}$ $\underline{230}$ 315 5	$2\sqrt{72}$ $\underline{636}$ 6	$2\sqrt{440}$ $\underline{440}$ 22

SIMPLIFY THE FOLLOWING SQUARE ROOTS WITH IMAGINARY NUMBERS

NOTE: $\sqrt{-1} = i$

$\sqrt{-16}$	$\sqrt{-512}$	$\sqrt{-128}$
$4i$	$16i\sqrt{2}$	$8i\sqrt{2}$
$\xrightarrow{\quad}$	$\xrightarrow{\quad}$	$\xrightarrow{\quad}$
$2\sqrt{16}$ $\underline{16}$ 4	$2\sqrt{512}$ $\underline{2128}$ $\underline{28}$ 8	$2\sqrt{128}$ $\underline{128}$ 8

5
 $\sqrt{1440}$
 $\underline{288}$
 $\underline{144}$
315
5

$2\sqrt{28}$
 $\underline{864}$
8