## Greatest Common Factor (H)

Name:
Date: $\qquad$
Use the prime factors of the numbers in each set to calculate the greatest common factor.
a) $126=2 \times(3) \times(3) \times(7)$
b) 54
$63=(3) \times(3) \times(7)$ 390
$\mathrm{GCF}=(3) \times(3) \times(7)=63$
c) 210
d) 52
375 284
e) 39
f) 56

195
156
g) 54

138
h) 260

50
i) 304

112
j) 66
$112 \quad 231$

## Greatest Common Factor (H) Answers

Name: $\qquad$ Date: $\qquad$
Use the prime factors of the numbers in each set to calculate the greatest common factor.
a) $126=2 \times(3) \times(3) \times(7)$
b) $54=$ (2) $\times$ (3) $\times 3 \times 3$
$63=(3) \times(3) \times(7)$
GCF $=(3) \times(3) \times(7)=63$

$$
\begin{aligned}
& 390=(2) \times(3) \times 5 \times 13 \\
& G C F=(2) \times(3)=6
\end{aligned}
$$

c) $210=2 \times(3) \times(5) \times 7$
d) $52=$ (2) $\times$ (2) $\times 13$
$375=(3) \times(5) \times 5 \times 5$
$284=$ (2) $\times(2) \times 71$
$\mathrm{GCF}=(3) \times(5)=15$

$$
\text { GCF }=(2) \times(2)=4
$$

e) $39=(3) \times 13$

$$
\begin{aligned}
& 195=(3) \times 5 \times 13 \\
& \text { GCF }=3 \times 13=39
\end{aligned}
$$

$$
\text { f) } \begin{aligned}
56 & =(2) \times(2) \times 2 \times 7 \\
156 & =(2) \times(2) \times 3 \times 13 \\
\text { GCF } & =(2) \times(2)=4
\end{aligned}
$$

g) $54=(2) \times(3) \times 3 \times 3$

$$
\begin{aligned}
& 138=(2) \times(3) \times 23 \\
& G C F=(2) \times(3)=6
\end{aligned}
$$

h) $260=(2) \times 2 \times(5) \times 13$

$$
\begin{aligned}
& 50=(2) \times 5 \times 5 \\
& \mathrm{GCF}=(2) \times 5=10
\end{aligned}
$$

$$
\text { i) } \begin{aligned}
304 & =(2) \times(2) \times(2) \times(2) \times 19 \\
112 & =(2) \times(2) \times(2) \times(2) \times 7 \\
\text { GCF } & =(2) \times(2) \times(2) \times(2)=16
\end{aligned}
$$

$$
\text { j) } \begin{aligned}
66 & =2 \times(3) \times 11 \\
231 & =(3) \times 7 \times 11 \\
\text { GCF } & =(3) \times 11=33
\end{aligned}
$$

