## Greatest Common Factor (G)

Name:
Date: $\qquad$
Use the prime factors of the numbers in each set to calculate the greatest common factor.
a) $352=2 \times 2 \times 2 \times 2 \times 11$
b) 152
$48=2 \times(2) \times 2 \times 3$
176
$\mathrm{GCF}=2 \times 2 \times 2 \times 2=16$
c) 24

108
d) 282

132
e) 212

40
g) 72

243
i) 248

12
h) 368

230
j) 56
f) 336

8

196

## Greatest Common Factor (G) Answers

Name: $\qquad$ Date: $\qquad$
Use the prime factors of the numbers in each set to calculate the greatest common factor.
a) $352=(2) \times(2) \times(2) \times(2) \times 2 \times 11$
b) $152=(2) \times(2) \times(2) \times 19$

$$
48=(2) \times(2) \times(2) \times(2) \times 3
$$

$$
\text { GCF }=(2) \times(2) \times(2) \times(2)=16
$$

$$
\begin{aligned}
& 176=(2) \times(2) \times(2) \times 2 \times 11 \\
& G C F=(2) \times(2) \times(2)=8
\end{aligned}
$$

$$
\text { c) } \begin{aligned}
24 & =(2) \times(2) \times 2 \times(3) \\
108 & =(2) \times(2) \times(3) \times 3 \times 3 \\
\text { GCF } & =(2) \times(2) \times(3)=12
\end{aligned}
$$

d) $282=$ (2) $\times$ (3) $\times 47$

$$
132=(2) \times 2 \times(3) \times 11
$$

$$
\mathrm{GCF}=(2) \times(3)=6
$$

e) $212=(2) \times(2) \times 53$
$40=(2) \times(2) \times 2 \times 5$
GCF $=(2) \times(2)=4$
f) $336=$ (2) $\times$ (2) $\times$ (2) $\times 2 \times 3 \times 7$
$8=(2) \times(2) \times(2)$
GCF $=(2) \times(2) \times(2)=8$

$$
\begin{aligned}
\text { g) } 72= & 2 \times 2 \times 2 \times(3) \times(3) \\
243 & =(3) \times(3) \times 3 \times 3 \times 3 \\
\text { GCF } & =(3) \times(3)=9
\end{aligned}
$$

h) $368=$ (2) $\times 2 \times 2 \times 2 \times 23$
$230=(2) \times 5 \times 23$

$$
\mathrm{GCF}=(2) \times 23=46
$$

i) $248=$ (2) $\times$ (2) $\times 2 \times 31$

$$
\text { j) } \begin{aligned}
56 & =(2) \times(2) \times 2 \times(7) \\
196 & =(2) \times(2) \times(7) \times 7 \\
\text { GCF } & =(2) \times(2) \times(7)=28
\end{aligned}
$$

