Greatest Common Factor (J)

Name: _____

Date:

Use the prime factors of the numbers in each set to calculate the greatest common factor.

a) $172 = 2 \times 2 \times 43$	b) 132
$164 = \textcircled{2} \times \textcircled{2} \times 41$	114

 $\mathsf{GCF}=\textcircled{2}\times\textcircled{2}=4$

c) 116	d) 168
316	8

e) 400	f) 318
360	234

g) 290	h) 320
50	368

i) 300	j) 130
368	190

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Greatest Common Factor (J) Answers

Name:

Date:

Use the prime factors of the numbers in each set to calculate the greatest common factor.

- a) $172 = (2) \times (2) \times 43$ $164 = (2) \times (2) \times 41$ GCF = $(2) \times (2) = 4$ b) $132 = (2) \times 2 \times (3) \times 11$ $114 = (2) \times (3) \times 19$ GCF = $(2) \times (2) = 4$ GCF = $(2) \times (3) = 6$
- c) $116 = 2 \times 2 \times 29$ $316 = 2 \times 2 \times 79$ GCF = $2 \times 2 = 4$

d)
$$168 = 2 \times 2 \times 2 \times 3 \times 7$$

 $8 = 2 \times 2 \times 2 \times 2$
GCF = $2 \times 2 \times 2 \times 2 = 8$

e)
$$400 = 2 \times 2 \times 2 \times 5 \times 5$$

 $360 = 2 \times 2 \times 2 \times 5 \times 5$
 $GCF = 2 \times 2 \times 2 \times 5 = 40$

f)
$$318 = 2 \times 3 \times 53$$

 $234 = 2 \times 3 \times 3 \times 13$
GCF = $2 \times 3 = 6$

g)
$$290 = (2) \times (5) \times 29$$

 $50 = (2) \times (5) \times 5$
GCF = $(2) \times (5) = 10$

i)
$$300 = 2 \times 2 \times 3 \times 5 \times 5$$

 $368 = 2 \times 2 \times 2 \times 2 \times 23$
GCF = $2 \times 2 \times 2 = 4$

h)
$$320 = (2) \times (2) \times (2) \times (2) \times 2 \times 2 \times 5$$

 $368 = (2) \times (2) \times (2) \times (2) \times 23$
GCF = $(2) \times (2) \times (2) \times (2) = 16$

j)
$$130 = 2 \times 5 \times 13$$

 $190 = 2 \times 5 \times 19$
GCF = $2 \times 5 = 10$