Greatest Common Factor (C)

Name: _____ Date: _____

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

a) $204 = (2) \times 2 \times (3) \times 17$

$42 = (2) \times (3) \times 7$

GCF = $(2) \times (3) = 6$

b) 294

78

c) 288

104

d) 100

376

e) 264

244

f) 168

318

g) 162

387

h) 99

396

i) 138

324

j) 325

400

Greatest Common Factor (C) Answers

Name: _____ Date: _____

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

a) $204 = (2) \times 2 \times (3) \times 17$

$42 = (2) \times (3) \times 7$

GCF = $(2) \times (3) = 6$

b) $294 = (2) \times (3) \times 7 \times 7$

$78 = (2) \times (3) \times 13$

GCF = $(2) \times (3) = 6$

c) $288 = (2) \times (2) \times (2) \times 2 \times 2 \times 3 \times 3$

$104 = (2) \times (2) \times (2) \times 13$

GCF = $(2) \times (2) \times (2) = 8$

d) $100 = (2) \times (2) \times 5 \times 5$

$376 = (2) \times (2) \times 2 \times 47$

GCF = $(2) \times (2) = 4$

e) $264 = (2) \times (2) \times 2 \times 3 \times 11$

$244 = (2) \times (2) \times 61$

GCF = $(2) \times (2) = 4$

f) $168 = (2) \times 2 \times 2 \times (3) \times 7$

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

GCF = $(2) \times (3) = 6$

g) $162 = 2 \times (3) \times (3) \times 3 \times 3$

$387 = (3) \times (3) \times 43$

GCF = $(3) \times (3) = 9$

h) $99 = (3) \times (3) \times (11)$

$396 = 2 \times 2 \times (3) \times (3) \times (11)$

GCF = $(3) \times (3) \times (11) = 99$

i) $138 = (2) \times (3) \times 23$

$324 = (2) \times 2 \times (3) \times 3 \times 3 \times 3$

GCF = $(2) \times (3) = 6$

j) $325 = (5) \times (5) \times 13$

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

GCF = $(5) \times (5) = 25$