Greatest Common Factor (D)

Name:

Date:

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

a) $150 = (2) \times (3) \times 5 \times 5$	b) 36
$204 = \textcircled{2} \times 2 \times \textcircled{3} \times 17$	304
$\mathrm{GCF} = (2) \times (3) = 6$	

c) 306	d) 78
366	240

e) 279	f) 21
351	357

g) 128	h) 360
200	222

i) 312	j) 189
100	243

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Greatest Common Factor (D) Answers

Name:

Date:

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

- a) $150 = (2) \times (3) \times 5 \times 5$ $204 = (2) \times 2 \times (3) \times 17$ GCF = $(2) \times (3) = 6$ b) $36 = (2) \times (2) \times 3 \times 3$ $304 = (2) \times (2) \times 2 \times 2 \times 19$ GCF = $(2) \times (3) = 6$ GCF = $(2) \times (2) = 4$
- c) $306 = 2 \times 3 \times 3 \times 17$ $366 = 2 \times 3 \times 61$ GCF = $2 \times 3 = 6$

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

240 = $(2) \times 2 \times 2 \times 2 \times (3) \times 5$
GCF = $(2) \times (3) = 6$

e)
$$279 = (3) \times (3) \times 31$$

 $351 = (3) \times (3) \times 3 \times 13$
GCF = $(3) \times (3) = 9$

f) $21 = (3) \times (7)$ $357 = (3) \times (7) \times 17$ GCF = $(3) \times (7) = 21$

g)
$$128 = (2) \times (2) \times (2) \times 2 \times 2 \times 2 \times 2$$

 $200 = (2) \times (2) \times (2) \times 5 \times 5$
GCF = $(2) \times (2) \times (2) = 8$

h)
$$360 = (2) \times 2 \times 2 \times (3) \times 3 \times 5$$

 $222 = (2) \times (3) \times 37$
GCF = (2) $\times (3) = 6$

i)
$$312 = 2 \times 2 \times 3 \times 13$$

 $100 = 2 \times 2 \times 5 \times 5$
GCF = $2 \times 2 \times 2 = 4$

j)
$$189 = 3 \times 3 \times 3 \times 7$$

 $243 = 3 \times 3 \times 3 \times 3 \times 3$
GCF = $3 \times 3 \times 3 \times 3 = 27$