Worksheet

04/16/2019

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Problem quickname: 4978

1)

Quick: 4978

Find the value requested.

a) What is the gcd of 69 and 92? It is 23, because $D_{69} = \{1,3,23,69\}$, $D_{92} = \{1,2,4,23,46,92\}$. The number 23 is the greatest number that is in both sets of divisors.

b) The lcm of 9 and 15 is 45, because when looking at the multiples we see: Multiples of 9: $9, 18, 27, 36, 45$; Multiples of 15: $15, 30, 45$. The number 45 is the first multiple shared by both numbers.

c) The lcm of 5 and 100 is 100, because when looking at the multiples we see: Multiples of 5: $5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100$; Multiples of 100: 100. The number 100 is the first multiple shared by both numbers.

d) What is the gcd of 72 and 96? It is 24, because $D_{72} = \{1,2,3,4,6,8,9,12,18,24,36,72\}$, $D_{96} = \{1,2,3,4,6,8,12,16,24,32,48,96\}$. The number 24 is the greatest number that is in both sets of divisors.

e) The lcm of 3 and 63 is 63, because when looking at the multiples we see: Multiples of 3: $3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63$; Multiples of 63: 63. The number 63 is the first multiple shared by both numbers.

f) The lcm of 16 and 64 is 64, because when looking at the multiples we see: Multiples of 16: $16, 32, 48, 64$; Multiples of 64: 64. The number 64 is the first multiple shared by both numbers.

g) What is the gcd of 58 and 87? It is 29, because $D_{58} = \{1,2,29,58\}$, $D_{87} = \{1,3,29,87\}$. The number 29 is the greatest number that is in both sets of divisors.

h) The lcm of 6 and 27 is 54, because when looking at the multiples we see: Multiples of 6: $6, 12, 18, 24, 30, 36, 42, 48, 54$; Multiples of 27: $27, 54$. The number 54 is the first multiple shared by both numbers.

i) What is the gcd of 62 and 93? It is 31, because $D_{62} = \{1,2,31,62\}$, $D_{93} = \{1,3,31,93\}$. The number 31 is the greatest number that is in both sets of divisors.

j) The lcm of 9 and 12 is 36, because when looking at the multiples we see: Multiples of 9: $9, 18, 27, 36$; Multiples of 12: $12, 24, 36$. The number 36 is the first multiple shared by both numbers.

2)

Quick: 4978

Find the value requested, the greatest common divisor (gcd) or the least common multiple (lcm).

a) What is the gcd of 50 and 75? It is 25, because $D_{50} = \{1,2,5,10,25,50\}$, $D_{75} = \{1,3,5,15,25,75\}$. The number 25 is the greatest number that is in both sets of divisors.

b) The lcm of 5 and 75 is 75, because when looking at the multiples we see: Multiples of 5: $5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75$; Multiples of 75: 75. The number 75 is the first multiple shared by both numbers.

c) What is the gcd of 32 and 64? It is 32, because $D_{32} = \{1,2,4,8,16,32\}$, $D_{64} = \{1,2,4,8,16,32,64\}$. The number 32 is the greatest number that is in both sets of divisors.

d) What is the gcd of 51 and 68? It is 17, because $D_{51} = \{1,3,17,51\}$, $D_{68} = \{1,2,4,17,34,68\}$. The number 17 is the greatest number that is in both sets of divisors.

e) The lcm of 9 and 15 is 45, because when looking at the multiples we see: Multiples of 9: $9, 18, 27, 36, 45$; Multiples of 15: $15, 30, 45$. The number 45 is the first multiple shared by both numbers.

f) What is the gcd of 50 and 75? It is 25, because $D_{50} = \{1,2,5,10,25,50\}$, $D_{75} = \{1,3,5,15,25,75\}$. The number 25 is the greatest number that is in both sets of divisors.

g) The lcm of 4 and 22 is 44, because when looking at the multiples we see: Multiples of 4: $4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44$; Multiples of 22: $22, 44$. The number 44 is the first multiple shared by both numbers.

h) The lcm of 3 and 22 is 66, because when looking at the multiples we see: Multiples of 3: $3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66$; Multiples of 22: $22, 44, 66$. The number 66 is the first multiple shared by both numbers.

i) What is the gcd of 48 and 72? It is 24, because $D_{48} = \{1,2,3,4,6,8,12,16,24,48\}$, $D_{72} = \{1,2,3,4,6,8,9,12,18,24,36,72\}$. The number 24 is the greatest number that is in both sets of divisors.

j) What is the gcd of 60 and 80? It is 20, because $D_{60} = \{1,2,3,4,5,6,10,12,15,20,30,60\}$, $D_{80} = \{1,2,4,5,8,10,16,20,40,80\}$. The number 20 is the greatest number that is in both sets of divisors.

3) Quick: 4978

Find the value requested, the greatest common divisor (gcd) or the least common multiple (lcm).

a) The lcm of 5 and 9 is 45, because when looking at the multiples we see: Multiples of 5: $5, 10, 15, 20, 25, 30, 35, 40, 45$; Multiples of 9: $9, 18, 27, 36, 45$. The number 45 is the first multiple shared by both numbers.

b) What is the gcd of 48 and 72? It is 24, because $D_{48} = \{1,2,3,4,6,8,12,16,24,48\}$, $D_{72} = \{1,2,3,4,6,8,9,12,18,24,36,72\}$. The number 24 is the greatest number that is in both sets of divisors.

c) What is the gcd of 60 and 90? It is 30, because $D_{60} = \{1,2,3,4,5,6,10,12,15,20,30,60\}$, $D_{90} = \{1,2,3,5,6,9,10,15,18,30,45,90\}$. The number 30 is the greatest number that is in both sets of divisors.

d) What is the gcd of 60 and 90? It is 30, because $D_{60} = \{1,2,3,4,5,6,10,12,15,20,30,60\}$, $D_{90} = \{1,2,3,5,6,9,10,15,18,30,45,90\}$. The number 30 is the greatest number that is in both sets of divisors.

e) What is the gcd of 50 and 75? It is 25, because $D_{50} = \{1,2,5,10,25,50\}$, $D_{75} = \{1,3,5,15,25,75\}$. The number 25 is the greatest number that is in both sets of divisors.

f) The lcm of 18 and 27 is 54, because when looking at the multiples we see: Multiples of 18: $18, 36, 54$; Multiples of 27: $27, 54$. The number 54 is the first multiple shared by both numbers.

g) What is the gcd of 54 and 81? It is 27, because $D_{54} = \{1,2,3,6,9,18,27,54\}$, $D_{81} = \{1,3,9,27,81\}$. The number 27 is the greatest number that is in both sets of divisors.

h) The lcm of 9 and 11 is 99, because when looking at the multiples we see: Multiples of 9: $9, 18, 27, 36, 45, 54, 63, 72, 81, 90, 99$; Multiples of 11: $11, 22, 33, 44, 55, 66, 77, 88, 99$. The number 99 is the first multiple shared by both numbers.

4) Quick: 4978

Find the value requested.

a) What is the gcd of 54 and 81? It is 27, because $D_{54} = \{1,2,3,6,9,18,27,54\}$, $D_{81} = \{1,3,9,27,81\}$. The number 27 is the greatest number that is in both sets of divisors.

b) What is the gcd of 66 and 88? It is 22, because $D_{66} = \{1,2,3,6,11,22,33,66\}$, $D_{88} = \{1,2,4,8,11,22,44,88\}$. The number 22 is the greatest number that is in both sets of divisors.

c) What is the gcd of 60 and 90? It is 30, because $D_{60} = \{1,2,3,4,5,6,10,12,15,20,30,60\}$, $D_{90} = \{1,2,3,5,6,9,10,15,18,30,45,90\}$. The number 30 is the greatest number that is in both sets of divisors.

d) What is the gcd of 66 and 99? It is 33, because $D_{66} = \{1,2,3,6,11,22,33,66\}$, $D_{99} = \{1,3,9,11,33,99\}$. The number 33 is the greatest number that is in both sets of divisors.

e) What is the gcd of 48 and 72? It is 24, because $D_{48} = \{1,2,3,4,6,8,12,16,24,48\}$, $D_{72} = \{1,2,3,4,6,8,9,12,18,24,36,72\}$. The number 24 is the greatest number that is in both sets of divisors.

f) What is the gcd of 66 and 99? It is 33, because $D_{66} = \{1,2,3,6,11,22,33,66\}$, $D_{99} = \{1,3,9,11,33,99\}$. The number 33 is the greatest number that is in both sets of divisors.

g) What is the gcd of 52 and 78? It is 26, because $D_{52} = \{1,2,4,13,26,52\}$, $D_{78} = \{1,2,3,6,13,26,39,78\}$. The number 26 is the greatest number that is in both sets of divisors.

h) What is the gcd of 75 and 100? It is 25, because $D_{75} = \{1,3,5,15,25,75\}$, $D_{100} = \{1,2,4,5,10,20,25,50,100\}$. The number 25 is the greatest number that is in both sets of divisors.

Good Luck!