Worksheet

07/30/2020

Free on dw-math.com

Problem quickname: 8903

1)

Is that statement true? Specify the appropriate divisibility rule.

a) 11209 is divisible by eight. False, because the number 209 formed by the last three digits is not divisible by eight, nor is it a zero.

b) 67220 is divisible by 40. False. While the last digit is a zero, the number 22 formed by the penultimate and third-last digit is not divisible by four.

c) 91 is divisible by five. False, because the last digit 1 is neither a zero nor a five.

d) 1905 is divisible by four. False, for the number 5 formed by the last two digits is not divisible by four, nor is it a zero.

e) 1769 is divisible by 25. False, because the number 69 formed by the last two digits is not divisible by 25 and it is not a zero.

f) 76491 is divisible by 20. False. The last digit is not a zero. The penultimate digit 9 ist ungerade.

g) 28937 is divisible by 40. False. The last digit is not a zero. The number 93 formed by the penultimate and third-last digit is not divisible by four.

h) 157 is divisible by two. False, because the last digit 7 is odd.

i) 5 is divisible by two. False, because the last digit 5 is odd.

j) 144 is divisible by five. False, because the last digit 4 is neither a zero nor a five.

2)

Why is this statement true? Specify the appropriate divisibility rule.

a) 79 is not divisible by five. Reason: The last digit 9 is neither a zero nor a five.

b) 946 is not divisible by nine. Reason: The digit sum 19 is not divisible by nine.

c) 37969 is not divisible by 20. Reason: It is true that the penultimate digit 6 is even, but the last digit is not a zero.

d) 70998 is not divisible by 100. Reason: The last two digits of the number are not 00.

e) 6017 is not divisible by three. Reason: The digit sum 14 is not divisible by three.

f) 120 is divisible by five. Reason: The last digit 0 is a zero or a five.

g) 8586 is divisible by nine. Reason: The digit sum 27 is divisible by nine.

h) 91521 is not divisible by 40. Reason: While it is true that the number 52 formed by the penultimate and third-last digit is divisible by four, the last digit is not a zero.

i) 12332 is not divisible by 125. Reason: The number 332 formed by the last three digits is not divisible by 125, nor is it a zero.

j) 67040 is divisible by 40. Reason: The number 4 formed by the penultimate and third-last digit is divisible by four and the last digit is a zero.

3)

Quick: 8903

Is that statement true? Specify the appropriate divisibility rule.

a) 126 is divisible by two. True, because the last digit 6 is even.

b) 254 is divisible by 25. False, because the number 54 formed by the last two digits is not divisible by 25 and it is not a zero.

c) 64884 is divisible by 50. False, because the number 84 formed by the last two digits is neither a zero nor 50.

d) 3155 is divisible by nine. False, because the digit sum 14 is not divisible by nine.

e) 4882 is divisible by nine. False, because the digit sum 22 is not divisible by nine.

f) 88 is divisible by five. False, because the last digit 8 is neither a zero nor a five.

g) 141 is divisible by five. False, because the last digit 1 is neither a zero nor a five.

h) 37613 is divisible by 50. False, because the number 13 formed by the last two digits is neither a zero nor 50.

i) 18440 is divisible by 50. False, because the number 40 formed by the last two digits is neither a zero nor 50.

j) 5595 is divisible by nine. False, because the digit sum 24 is not divisible by nine.

4)

Quick: 8903

Is that statement true? Specify the appropriate divisibility rule.

a) 160 is divisible by two. True, because the last digit of the number is a zero.

b) 723 is divisible by four. False, for the number 23 formed by the last two digits is not divisible by four, nor is it a zero.

c) 808 is divisible by four. True, because the number 8 formed by the last two digits is divisible by four.

d) 49 is divisible by 25. False, because the number 49 formed by the last two digits is not divisible by 25 and it is not a zero.

e) 88121 is divisible by 40. False. While it is true that the number 12 formed by the penultimate and third-last digit is divisible by four, the last digit is not a zero.

f) 6612 is divisible by eight. False, because the number 612 formed by the last three digits is not divisible by eight, nor is it a zero.

g) 947 is divisible by 25. False, because the number 47 formed by the last two digits is not divisible by 25 and it is not a zero.

h) 164 is divisible by two. True, because the last digit 4 is even.

i) 20600 is divisible by 20. True, because the penultimate digit 0 is even and the last digit is a zero.

j) 12633 is divisible by eight. False, because the number 633 formed by the last three digits is not divisible by eight, nor is it a zero.

Good Luck!