

Math 085 - Quiz 8

October 1, 2013

Name key

Score _____

Show all your work to receive full credit. Supply explanations when necessary.
NO CALCULATORS ARE ALLOWED ON THIS QUIZ!

1. (1 point) List four nonzero multiples of 9.

9, 18, 27, 36

2. (1 point) Is 371 a multiple of 7?

$$\begin{array}{r} 53 \\ 7 \overline{) 371} \\ \underline{35} \\ 21 \\ \underline{21} \\ 0 \end{array}$$

Yes! $371 = 7 \times 53$

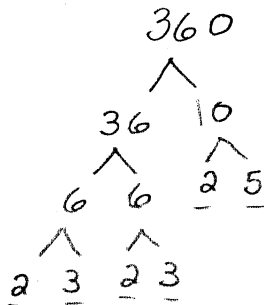
3. (2 points) Test the following number for divisibility by 5, 6, and 9: 3805440

$3+8+0+5+4+4+0 = 24 \Rightarrow$ THE NUMBER IS DIVISIBLE BY 3, BUT NOT 9.

ALSO, SINCE THE NUMBER ENDS WITH ZERO,
IT IS DIVISIBLE BY 2 AND 5.

ALL IN ALL, IT IS DIVISIBLE BY 5 AND 6, BUT NOT 9.

4. (1 point) Find the prime factorization of 360.



$$360 = 2^3 \cdot 3^2 \cdot 5$$