MTH1W Quiz (1.1-1.3) $\frac{\quad}{22+2} = \frac{\quad}{24}$ Name SOLUTIONS

1. Which sets does each of the following belong to **(N, W, Z, Q, Q′ and R):** [4]

a) 3 NWZQR

b) $-5.\bar{3}$ QR

c) π Q′R

d) 0 WZQR

2. Given the set {0,1,3,4,7,9} [3]

a) How many elements are in the set? 6

b) Is the set {1,2,3} a subset? NO

c) Is the set { } a subset? YES

3. Determine the limit for each sequence (if there is one). [3]

a) 5.12, $5.\overline{12}$, 5.121212, ...

$5.\overline{12}$

b) 3,6,12,24,...

×2 ×2 48, ...

∞ NO LIMIT

c) −10, −2, −0.4, −0.08, ...

÷5 ÷5

$\frac{1}{\text{HUGE}}$ → LIMIT = 0

4. Evaluate. [12]

a) $2-5$

$= -3$

b) $-2+(-1)$

$= -2-1$

$= -3$

c) $(-2)(-6)$

$= 12$

d) $\frac{-24}{4}$

$= -6$

e) $2-3\times4^2$

$= 2-3\times4\times4$

$= 2-12\cdot4$

$= 2-48$

$= -46$

f) $2+3[4-(3)(-2)]$

$= 2+3(4-(-6))$

$= 2+3(4+6)$

$= 2+3(10)$

$= 2+30$

$= 32$

g) $\frac{5-2(-3)+(-1)}{-(16)\div4(-2)}$

$= \frac{5+6-1}{-4(-2)}$

$= \frac{10}{8}$

$= \frac{5}{4}$