

(C2-7.1a) Name:

## Homework Questions 1 – Finding and Using the Common Ratio

1. Find the common ratio for the following sequences

a) 3, 12, 48, 192

4

b) 6, 9, 13.5, 20.25

1.5

c) 5, 45, 405, 3645

9

d) 7, 8.75, 10.9375, 13.671875

1.25

e) 11, 33, 99, 297

3

2. If 16,  $x$ , 9 are the first 3 terms of a geometric sequence, find the exact value of  $x$

12

3. If 5,  $y$ , 31.25 are the first 3 terms of a geometric sequence, find the exact value of  $y$

12.5

4. Find the common ratio and hence the 5<sup>th</sup> term of the following sequences

a) 2, -0.6, 0.18, -0.054

0.0162

b) 150, 60, 24, 9.6

3.84