## **NUMERACY REVIEW – UNIT TEST REVIEW**

- 1. Solve by addition or subtraction (8 marks)
  - a) 10 2 = %

b) -5-11 = -16

c) -4 +5

d) 6- (-5) = 6 +5 = 11

e) (-1) + (-5) + (-9) = -1 - 5 - 9 = -6 - 9 = -15

- e) 12-(-6)+(-4)-9 = 12+6-4-9 = 18-4-9 = 14-9 = 5
- 2. At the start of the summer Erin had \$560 in her bank account. Over the summer she spent \$235 and made \$468 working her part-time job. How much money should Erin have in her account at the end of the summer? (3 marks)

- 3. Solve by multiplication or division (6 marks)
  - a) 6 x (-4)
  - = -24

- c) (-2) x (-1)
  - = 2

- e)  $-\frac{24}{4}$
- = -6

b)  $(\frac{-8}{2})$ 

= -4

- d)  $(-36) \div (-9)$ 
  - 4

- f) -4(2)(-3)
- = -8(-3)
  - = 24

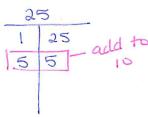
- 4. Determine a pair of integers that meet the criteria outlined (6 marks)
  - a) Multiply to -20

Add to 1

- b) Multiply to 42

  Add to -13

  therefore
  a negat
- H2 -1 -42 -2 -21 -3 -14 1-6 -7 - add to
- c) Multiply to 25 Add to 10



- 5. Write each expression as a power (2 marks)
  - a)  $4 \times 4 \times 4 \times 4 \times 4$

b) 
$$(-2) \times (-2) \times (-2)$$

$$=(-2)^3$$

- $= (-2)^{3}$ 6. For each power, indicate which number is the base and which is the exponent (3 marks)
  - a)  $5^3$

Base: 5

b)  $(-6)^4$ 

c)  $125^1$ 

Base: (-6)

Base: 125

Exponent: 3

Exponent: 4

Exponent: )

- 7. Evaluate (2 marks)
- a)  $5^{3}$ 
  - = 125

- b) 2<sup>5</sup>
- = 32

- 8. Evaluate (3 marks)
  - a)  $\sqrt{36}$
  - = 6

- b)  $\sqrt{64}$
- = 8

- c)  $\sqrt{12}$
- = 3.46

- 9. Evaluate (6 marks)
- a)  $2^5 5^1$
- = 32-5
- = 27

- b)  $4^2 + 10^2$
- = 16 + 100
- = 116

- c)  $\sqrt{20-4}$
- = 116
- = 4

- c)  $\sqrt{36} + 2^3$
- = 6+8
- = 14

- e)  $9^2 \sqrt{68 4}$
- = 92 164
- = 81-8
- = 73

- f)  $3^3 \sqrt{9} + 2^3$
- = 27 3 + 8
- = 24+8
- = 32
- 10. Simplify. (Don't forget BEDMAS rules) -SHOW ALL YOUR WORK- (11 marks)
- a)  $-5 + 4 \times 2$
- = -5+8
- = 3
  - c)  $4(-3+1)^2-(6-4)^3$
- $= + (-2)^2 (2)^3$
- = 4(4)-8
- = 16-8
- 8

- b)  $2(4-1)+2\times3$
- = a(3)+ ax3
- $= 6 + 2 \times 3$
- = 6+6
- = 12
- f)  $\sqrt{49} (-4) + 3^2$ = 7 (-4) + 9
- = 7+4+9
- = 11+9
  - = 20

11. Evaluate using substitution. (12 marks)

a) 
$$6a + 3b$$
 when  $a = 3, b = -2$   
=  $(3) + 3(-2)$ 

b)  $x^2 - 3x + 10$  when x = 2

c)  $-9x + y^2$  when x = -4, y = -7

d)  $y^2 + 4y - 13$  when y = 4

$$=$$
 32 - 13

12. Write the following ratios in simplest form (3 marks)

a) 18:20 ÷2

b) 20:40 + 20

c) 36:720 ÷ 36

= 9:10

= 1:2

= 1:20

13. Evaluation the following fractions. (6 marks)

a) 
$$\frac{3}{4} + \frac{1}{5}$$
 LCD = 20

$$=\frac{15}{20}+\frac{4}{20}$$

$$c)\frac{3}{4} \times \frac{2}{5}$$

 $b)\frac{7}{15} - \frac{2}{5} \times 3$  LCD = 15

$$d)^{\frac{3}{4}} \div \frac{7}{8}$$

14. Jill thinks that  $-3 \times -5 = 15$ . Her friend thinks that the answer should be -15. Who is correct? Explain your answer. (2 marks)

J.11 is correct. When you multiply two terms where the signs are the same, you get a positive answer

15. The temperature this morning at sunrise was 5°C. It rose 12°C by midday and then fell 7° by sunset. What was the temperature at sunset? (3 marks)

16. John wants to buy a used ATV that costs \$2100 by the end of the summer. He has \$650 in his account at the start of the summer. He figures he will make about \$1900 from his summer job and he wants to be able to spend \$350 on daily expenses. Will he have enough money at the end of the summer to buy the ATV? (3 marks)

.. John will be able to afford the ATV