NUMBER THEORY- UNIT TEST

Name: _____ Date: _____

1. From the set { 2 , -4 , $\sqrt{3}$, -0.18 , 1 , $\frac{4}{5}$ }

a) Drag and drop the numbers above to arrange in ascending order.

_____, _____, _____, _____, _____, _____

b) From the above set of numbers, write down

i). the integers _____, _____, _____

ii). the irrational number(s) _____

iii). the prime number(s) _____

iv). the square number(s) _____

2. Put a check mark for each set that the number is a part of:

	Natural Number	Whole Number	Integer	Rational Number	Irrational Number	Real Number
-4						
$\frac{1}{3}$						
$\sqrt{36}$						
0.375						
π						

3. (a) Express 400 as a product of its prime factors.

	400

Be sure to list factors in ASCENDING ORDER.

400 = _____ x _____ x _____ x _____ x _____ x _____

(b) Write your answer for (a) in index form. 400 = _____ x _____

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(c) Evaluate: $\sqrt{400}$ = _____

4. From the set {20, 21, 22, 23, 24, 25, 26, 27, 28} write down the

a) multiple of 13, _____

b) factor of 81 _____

c) cube number _____

d) the LCM of 4 and 14 _____

e) the HCF of 63 and 84 _____

5. Divide the product of 44 and 25 by the sum of 27 and 28.

SHOW ALL WORKING HERE

FINAL ANSWER = _____

6. Find the missing terms in the given sequences.

(a) 4, 8, 16, 32, _____, _____

(b) 53, 50, 45, 38, 29, _____, _____

(c) 1, 3, 6, 10, _____, _____

(d) -17, -13, -9, _____, _____, 3

(e) 2.3, 2.9, 3.5, 4.1, _____, _____

7. Evaluate:

(a) $\sqrt{625} - 3^3$

_____ − _____

Ans = _____

(b) $5^2 + \sqrt[3]{343}$

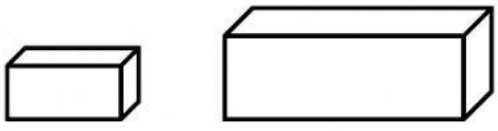
_____ + _____

Ans= _____

8. A warning light blinks every 6 seconds. Another warning light nearby blinks every 8 seconds. At one point, they blink together. Calculate how many seconds will elapse before they blink together again?

Ans = _____seconds

9. Calculate the largest size bucket that can be used to exactly fill a 66 litre or 84 litre tank.



66 litres 84 litres

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Ans = _____litre

10. Identify the **first 5 terms** in the sequence whose nth term formula is: 2n- 4

_____, _____, _____, _____, _____

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