The file: worksheet about Whole numbers and fractions

More files for: 8th Grade subject Science - Term 1

Section B
Answer **all** questions.
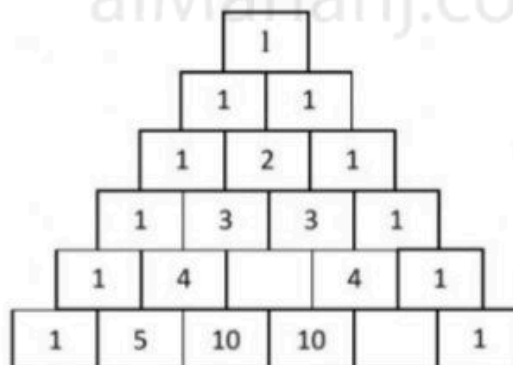### (20 marks)

1. Match the number sequences with the correct pattern.

   (4 marks)

Number sequences		Pattern
4,8,12,16,…		$2n + 2$, n=1,2,3,…
1,8,27,64,…		$4n - 1$, n=1,2,3,…
3,7,11,15,…		$4n$, n=1,2,3,…
4,6,8,10,…		n^3, n=1,2,3,…

2. Complete the following sequence by filling in the blanks.

   (4 marks)

   a.

```
              1
           1     1
        1     2     1
     1     3     3     1
  1     4           4     1
1     5    10    10          1
```

   b. 1, ___ , 2, 3, 5, ___ , …..

3. Mark (/) for the sequence and (x) if not a sequence.

   (4 marks)

   a. -10, -6, -7, 1, -12, 3,…   [ ]

   b. -2, -4, -8, -16, -32,…   [ ]

   c. $\frac{1}{4}, \frac{3}{8}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, …$ [ ]

   d. 0.04, 0.16, 0.64, 2.56,…   [ ]

4. Match each of the following algebraic expression with the correct answer.

(4 marks)

$\left(\dfrac{a}{4}\right)^2$	
$\left(-\dfrac{a}{2}\right) \times \left(-\dfrac{a}{3}\right)$	
$\left(-\dfrac{a}{2}\right) \times \left(-\dfrac{a}{2}\right)$	
$\left(\dfrac{a}{3}\right)^2$	

$\dfrac{a^2}{4}$
$-\dfrac{a^2}{9}$
$-\dfrac{a^2}{6}$
$\dfrac{a^2}{16}$
$\dfrac{a^2}{9}$

5. Complete the factorisation using cross multiplication method using the correct method.

(4 marks)

$2r^2 - 5rs - 3s^2 = (2r + s)(\underline{\hspace{2cm}})$

$2r$ ⟍⟋ s $\quad$ _____

_____ ⟋⟍ -3s $\quad$ -6rs

$2r^2$ $\qquad$ $3s^2$ $\quad$ _____