

Introduction to Mathematics and Science (Test 1)

~~X~~ 175670. Alaine
Ali

O
F

~~X~~

i) $x^4 \times x \times x^6 \times x$
 $4x + 6x = 10x$
 $- 4x - 6x = -10x$
 $\therefore x^4 \times x \times x^6 \times x = \frac{10}{2}$
 $x = \frac{10}{2}$

ii) $2x^2 \times 3x^3 \times 2x$
 ~~$6x \times 5x \times 4x$~~
 $6x = x^5 = 4x$
 $6x + 4x = 10x$
 $10x^5$

iii) $x^4 \times x^3 \times x^2 = x^9 \leftarrow x^9$
 $x^7 \times x^2 = x^9$
 x^9 $- 4x - 3x - 2x = 9x$

iv) $(3x^2)^3$ $3 \div 2 = 6 + 3$ ~~$3 \div 2$~~

v) $\sqrt{x} \times \sqrt{x} = \sqrt{2} \times \sqrt{1} = \sqrt{1}$

MATHmatics Test
page 2.

175670 Alaine
Ali

Q2

Linea equations

X
O
F

i) $15x - 2 = 12x + 9$
 $15x - 2 = 30x + 9$

ii) $3(7x - 1) = 6(x + 13)$ $9 = 6x = 3 + 3$
 $3x + 3x + 3x = 9x$
9x

iii) $\frac{5x+3}{4} = \frac{2x-1}{9}$

$\frac{3}{4} = -\frac{1}{9}$ $4 - \frac{1}{9} = \frac{27}{35}$

Q3) i) $x^2 + 10x + 21 = 0$ X

~~Q4) $5x + 39 = 39$
 $8x - 24 = 42$~~

Mathematics Test
page 3

175670 Alain
Aci

y

o

F

X

Q5)

i)

$$5x + 3y = 39$$

$$8x - 2y = 42$$

Q6)

$$5(2x^2 - y^2) - x^2(x^2 - y) - x^2y - x^4$$