



# BASELINE ASSESSMENT

## GRADE 10

Name: \_\_\_\_\_

Member ID: \_\_\_\_\_

Time: 90 Minutes

NO CALCULATOR ALLOWED  
FOR Q1-Q28. USE YOUR BRAIN.

Calculate:

1)  $-1 + 6 = \underline{\hspace{2cm}}$

2)  $5 - 9 = \underline{\hspace{2cm}}$

3)  $-7 - 2 = \underline{\hspace{2cm}}$

7003/  
7004

FOR  
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Calculate:

4)  $-5 \times 10 \times -3$   
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5)  $28 \div -7 = \underline{\hspace{2cm}}$

6)  $4 \times 3 + 6 \times 5$   
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7)  $8 + 2 \times 9$   
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8)  $-30 \div 10 \times 5 + 7$   
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9)  $3 \times 2 \times (72 \div 9) - 13$   
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This test is mainly to identify the learner's problem areas. The final mark is only a rough estimation, as the weight of all the questions are 1 mark irrespective of number of steps.

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10)  $\frac{2}{6}$  of  $36 - 10$   
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11)  $4 \times 10 \div 5 \times (13 - 11)$   
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Find the equivalent fractions:

12)  $\frac{5}{7} = \frac{\hspace{1cm}}{21}$

13)  $\frac{2}{9} = \frac{8}{\hspace{1cm}}$

7019

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Simplify:

14)  $\frac{35}{77} =$

15)  $\frac{24}{80} =$

7019

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Fill in  $<$ ,  $>$  or  $=$

16)  $\frac{3}{5}$   $\frac{20}{25}$   
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7019

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17)  $\frac{7}{9}$   $\frac{3}{5}$   
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Write as mixed fraction:

18)  $\frac{11}{2} =$

19)  $\frac{38}{5} =$

7020

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Write as improper fraction:

20)  $8\frac{2}{3} =$

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21)  $3\frac{9}{11} =$

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Calculate:

22)  $\frac{5}{7} + \frac{4}{7} =$

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23)  $\frac{1}{6} + \frac{4}{9}$

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24)  $1\frac{1}{3} + 2\frac{3}{4}$

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25)  $\frac{2}{3} \times \frac{5}{8}$

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27)  $\frac{3}{8} \div \frac{1}{7}$

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28)  $2\frac{1}{4} \times 5\frac{5}{6} \div 1\frac{11}{24}$

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29)  $3x - \frac{x^2}{3} - 7x^3 + 10$

8081

a) How many terms are in the expression?

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b) What is the variable?

8082

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c) What is the constant term?

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d) What is the coefficient of  $x^3$ ?

8083

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e) What is the degree of the expression?

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f) Rearrange the expression in descending powers of  $x$ .

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Simplify:

30)  $5x + 2x$

8084

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31)  $3x^2 + 4xy + 2x + x^2 + 2xy$

8084

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Simplify:

32)  $6 \times a \times a \times a \times b \times b$

8085

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33)  $(6g^2h)(2gh^3)$

8085

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34) Subtract  $3a^2 + 9a - 6$  from  $4a^2 + 5a - 7$  8089

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If  $x = -3, y = 3, z = 4$  determine:

35)  $12z - 20$  8090

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36)  $\frac{5y - 3}{3x + 5}$  8090

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37)  $(3x^2)^3 \times (x^4)^2$  8093

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38)  $\sqrt{36x^8y^{14}}$  8094

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39)  $\sqrt[3]{27g^{12}k^6}$  8094

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Simplify:

40)  $2x^5(3x^3)^2$  9001

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41)  $\left(\frac{5}{x^{-3}}\right)^2$  9001

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42)  $(5xy)^2 \times \frac{2x^2y^0}{x^7}$  9001

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43)  $\frac{x^4 \times x^9y^{15}}{(x^3y^2)^3 \times (xy^2)^4}$  9002

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Write in expanded form:

44)  $5,8 \times 10^8$  9003

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Write in Scientific Notation:

45) 94 000 000 9003

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46) 0,0000031 9003

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47)  $(3,4 \times 10^{-4}) + (3,4 \times 10^{-5})$  9003

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Simplify:

48)  $-5x^{-3}y^2 \times -8x^9y^6$  9004

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49)  $5x(-x^2 + x - 2)$  9005

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50)  $4x(x + 2) - 2x(-7x - 3)$  9005

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51)  $(x + 5)(3x - 2)$  9006

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52)  $(x + 4)^2$  9007

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53)  $4x - \{3x - 2[2(x + 5) - 6]\}$  9008

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Factorise:

54)  $16x^4y^8 - 24x^3y^7 + 8x^2y^3$  9010

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55)  $9c^2 - d^2$  9011

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56)  $x^2 - 16x + 15$  9012

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57)  $3xy + 6x - wy - 2w$  9013

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Simplify:

58)  $\frac{28x^8y^3 - 42x^3y^6 - 7x^2y^4}{7x^2y^3}$  9016

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59)  $\frac{x^2}{9} \times \frac{18}{x}$  9016

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60)  $\frac{2x^2 - 8x}{5x - 20}$  9017

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61)  $\frac{x^2 - 25}{5x} \div \frac{x - 5}{10x}$  9018

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Solve the following equations:

62)  $1 - x = 3 - (-2x - 4)$  9020

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63)  $\frac{x+2}{4} - \frac{x-6}{3} = 1$

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70)  $4^{3-2x} = 16^{6x-2}$

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64)  $2x(x-8) = 0$

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65)  $(x-7)(3x+15) = 0$

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66)  $x^2 - 2x = 0$

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67)  $x^2 - 2x - 35 = 0$

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68)  $3^x = 27$

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69)  $3 \cdot 6^x = 3$

9023

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