

## Grade 8 Maths Test

### Algebraic Expression and Identities      Max 25

**Q1:** Find

- |   |   |
|---|---|
| a) $\left(\frac{2}{3}x + \frac{4}{5}y\right)\left(\frac{2}{3}x + \frac{4}{5}y\right)$ | b) $\left(\frac{1}{9}x^2 - 9\right)\left(\frac{1}{9}x^2 - 9\right)$ |
| c) $(3m - 4n)^2$  | d) $(\frac{a}{2} + \frac{2}{a})^2$                                  |
- 4

**Q2)** Find

- |   |   |
|---|---|
| a) $\left(x - \frac{1}{x}\right)\left(x + \frac{1}{x}\right)$ | b) $(7x + 11y)(7x - 11y)$ , c) $(4x^2 - 25)$ , d) $(9x - 10)^2$ |
|---|---|
- 4

**Q3** If  $\left(x + \frac{1}{x}\right) = 4$

Find

- |                            |                             |
|----------------------------|-----------------------------|
| i) $(x^2 + \frac{1}{x^2})$ | ii) $(x^4 + \frac{1}{x^4})$ |
|----------------------------|-----------------------------|
- 4

**Q4** Find using identities

- |                  |                        |                           |               |
|------------------|------------------------|---------------------------|---------------|
| i) $82^2 - 18^2$ | ii) $(197 \times 203)$ | iii) $(0.98 \times 1.02)$ | iv) $(999^2)$ |
|------------------|------------------------|---------------------------|---------------|
- 4

**Q5** Find difference of

- $(3q+7p^2-2r^3+4)$  and  $(4p^2-2q+7r^3-3)$
- 3

**Q6** Find sum of

- $(6xy + 4x^2 + 5Y^2)$  and  $(3y^2 - 2xy)$
- 3

**Q7** Find product of two

- $(2x+y)$  and  $(3x-2y-7)$
- 3