Year 9 Maths Sample

Property of Prestige Tuition

Question 1: Fully factorise

1. $2x + 4$
2. $7x + 21$
3. $3x + 12$
4. $5x + 20$
5. $4 - 8x$
6. $3x - 6$
7. $6 - 9x$
8. $33 - 3y$
9. $-9 - 3x$
10. $-10 + 5x$
11. $2x + 28$
12. $x - 4$
13. $13x - 26$
14. $-14x + 14$
15. $15 - 3x$

Question 2: Fully Factorise

1. $2xy + x^2$
2. $4y + y^2$
3. $x^4y + x^2y^3$
4. $3x^4 + 9xy^3$
5. $4x^2 + x^2y$
6. $15x^4 + 9x^2y^2$
7. $14x^4y + 7x$
8. $7y + 4y^3$
9. $24x^4 + 9y^3$
10. $x^4y + x^2$
11. $2x^4y + 16y^3$
12. $4x^4y + 7x^2$
13. $19x^4y + 6y^3$
14. $8x^4y + 4x^2y^3 + 2$
15. $x^4y + x^2y^3 + x^2$

Question 3: Expand and simplify

1. $4(x+2)$
2. $6(y+2x)$
3. $x(x+2y)$
4. $9(xy+3y)$
5. $8(2x+y)$
6. $y(x+2)$
7. $4(x+2)+2x$
8. $6(xy+2y)+12y$
9. $x^2(x+3)+x$
10. $8(xy+2)+3yx$
11. $6(xy+2)$
12. $5(x+y^2)$
13. $16(x+y)+xy$
14. $4y^2(x^2+2y)$
15. $15x(x+2)+4x^2$

Question 4: Expand and simplify

1. $(x+2)(x+3)$
2. $(x+2)(y+2)$
3. $(xy+4)(x+4)$
4. $(x+7)(x+7)$
5. $(x+4)(x+8)$
6. $(x+2)(x+5)$
7. $(x+2y)(x+7)$
8. $(x+2)(xy+6)$
9. $(x+2y)(y+3x)$
10. $(y+2x)(x+3y)$
11. $(x+8y)(x+7)$
12. $(x+4)(x+8)$
13. $(x+2)(x+y)$
14. $(x+6)(x+y)$
15. $(xy+6y)(xy+3)$