Year 9 Class 4 questions

Q1

Expand and simplify $10a-(3a+7)$.

- ○ 0
- ○ $14a$
- ○ $7a-7$
- ○ $7a+7$

Q2

Expand and simplify $(x+5)^2$.

- ○ $x^2+5x+25$
- ○ $x^2+5x+10$
- ○ $x^2+10x+25$

Q3

Factorise $x(x+9)+y(x+9)$.

- ○ $(x+y)(y+9)$
- ○ $(x+9)(x+y)$
- ○ $(x+9)(y+9)$
- ○ $(x-9)(x+y)$

Q4

Expand and simplify $3x+y-2(x-y)$.

- ○ $x+3y$
- ○ $x-5y$
- ○ $4x+2y$
- ○ $6xy$

Q5

Expand and simplify $8m-(2+3m)$.

- ○ $6m-2$
- ○ $m+5$
- ○ $11m-2$
- ○ $5m-2$

Q6

Expand and simplify $(2-a)^2$.

- ○ $a^2-28a+196$
- ○ a^2-4a+4
- ○ $a^2-14a+49$

Q7

Expand and simplify $(1-y)^2$.

- ○ $y^2-8y+16$
- ○ $y^2-10y+25$
- ○ y^2-2y+1

Q8

Factorise $b(x+3)-2(x+3)$.

- ○ $(b+2)(x-3)$
- ○ $(b+2)(x+3)$
- ○ $(b+3)(x-2)$
- ○ $(x+3)(b-2)$

Q9

Factorise $a(m+5)-5(m+5)$.

- ○ $(m+5)(a-5)$
- ○ $(a+5)(m-5)$
- ○ $(a+5)(m+5)$
- ○ $(a+m)(a-5)$

Q10

Expand and simplify $3(x+2y)+2(4x-3y)$.

- ○ $11x$
- ○ $6x^2+12x$
- ○ $12x^2-8x$
- ○ $12x^2$

Q11

Expand and simplify $6(a+2b)+a(3+2b)$.

- $2a^2+12b+9$
- $9a-2b+12ab$
- $9a+12b+2ab$
- $12a^2-9b+2$

Q12

Expand and simplify $5x(x-2)-2(2-5x)$.

- $12x-5$
- $2x^2-6$
- $5x^2-4$
- $4x^2+5$

Q13

Expand and simplify $(10-x)^2$.

- $x^2-10x+20$
- $20-20x-x^2$
- $x^2-20x+100$

Q14

Expand and simplify:

$(2a-2b)^2 = \square\, a^2 - \square\, ab + \square\, b^2$

Q15

Expand and simplify:

$\left(2p+\frac{1}{2}\right)^2 = \square\, p^2 + \square\, p + \frac{\square}{\square}$

Q16

Factorise $x^2(x-3)+8(x-3)$.

- $(x-3)(x+8)$
- $(x-3)(x^2+8)$
- $(x-3)(x^2-8)$
- $8x^2(x-3)$

Q17

Factorise $x^2(x-4)+3y(x-4)$.

- $(x-4)(3x^2+y)$
- $(x-4)(x^2+y)$
- $(x-4)(3x^2-y)$
- $(x-4)(x^2+3y)$

Q18

Factorise $y(x+2y)+x^2(2y+x)$.

- $(x+2y)(x^2+y^2)$
- $(x+2y)(y^2+x)$
- $(x+2y)(y+x^2)$
- $(2x+y)(y+x^2)$

Q19

Expand and simplify $8pq-3p(p+2q)$.

- $6p^2q$
- $2pq-3p^2$
- $2p^2q+2p$
- $3p^2+2pq$

Q20

Expand and simplify $5a^2-2a(2a+b-3)$.

- $6a^2-2ab+4$
- $2a^2+6ab$
- $a^2+6ab-2a$
- $a^2-2ab+6a$

Q21

Expand and simplify $4(3-2j)+5(3j-2)$.

- $7j+2$
- $2j+7j$
- $7j-2j$
- $j-7j$

Q22

Expand and simplify $12xy - 6x(x - 2y)$.

- $6xy + 24x$
- $24xy - 6x^2$
- $4xy + 20x^2$
- $24x^2y - 6x$

Q23

Expand and simplify $\left(4x - \frac{1}{2}\right)^2$.

- $4x^2 - 4x + \frac{1}{4}$
- $16x^2 - 2x + 1$
- $16x^2 - 4x + \frac{1}{4}$

Q24

Expand and simplify $(-2x - 5)^2$.

- $4x^2 + 20x + 25$
- $4x^2 + 10x - 25$
- $4x^2 + 25$

Q25

Expand and simplify $(3x + 2y)^2$.

- $9x^2 + 6xy + 4y^2$
- $9x^2 + 4y^2$
- $9x^2 + 12xy + 4y^2$

Q26

Expand and simplify $\left(6b - \frac{1}{3}\right)^2$.

- $9b^2 - 2b + \frac{1}{9}$
- $9b^2 - b + \frac{1}{36}$
- $36b^2 - 4b + \frac{1}{9}$

Q27

Factorise $7x(x - 3) + (x - 3)$.

- $7x(x - 3)$
- $(x - 3)(7x - 1)$
- $(x - 3)(x + 7)$
- $(x - 3)(7x + 1)$

Q28

Factorise $x(2x + 3) - (2x + 3)$.

- $(2x + 3)(x - 1)$
- $(2x - 3)(x - 1)$
- $(2x + 3)(x + 1)$
- $x(2x - 3)$

Q29

Factorise $(x^2 - 2y) + 5x(x^2 - 2y)$.

- $(x^2 - 2y)(1 + 5x)$
- $5x(x^2 - 2y)$
- $(x^2 - 2y)(x + 5)$
- $(x^2 - 2y)(x - 5)$

Q30

Factorise $(2y - x^2) + 3x(2y - x^2)$.

- $(2y - x^2)(1 + 3x)$
- $(2y - x^2)(3 + x)$
- $(2y - x^2)(2y + 3x)$
- $3x(2y - x^2)$