

Latihan Soal

UN SMA/MA

Mapel : Matematika SMA

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Latihan Soal

Mata Pelajaran

Matematika SMA

Oleh Team Unisma.com

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Materi: Operasi Aljabar

Disusun oleh : Team unsma.com

- $(3x + 7)(x - 2) = \dots$
 - $3x^2 + x - 14$
 - $3x^2 - x + 14$
 - $3x^2 + x + 14$
 - $3x^2 - x - 14$
 - $3x^2 + 13x - 14$

- $(4x - 7y)^2 = \dots$
 - $4x^2 - 14xy + 9y^2$
 - $4x^2 - 28xy + 49y^2$
 - $9x^2 - 56xy + 16y^2$
 - $16x^2 - 56xy + 49y^2$
 - $16x^2 - 28xy + 49y^2$

- $(5p - q)^3 = \dots$
 - $5p^3 - 15p^2q + 12pq^2 - 2q^3$
 - $5p^3 - 75p^2q + 6pq^2 - q^3$
 - $125p^3 - 15p^2q + 15pq^2 - q^3$
 - $125p^3 + 75p^2q + 15pq^2 - q^3$
 - $125p^3 - 75p^2q + 15pq^2 - q^3$

- $(a + 3b)^4 = \dots$
 - $a^4 + 12a^3b + 28a^2b^2 + 108ab^3 + 9b^4$
 - $a^4 + 12a^3b + 54a^2b^2 + 108ab^3 + 81b^4$
 - $a^4 + 96a^3b + 216a^2b^2 + 216ab^3 + 81b^4$
 - $a^4 + 12a^3b + 432a^2b^2 + 432ab^3 + 81b^4$
 - $81a^4 - 192a^3b + 432a^2b^2 + 432ab^3 + 324b^4$

- $(x - 3y - 2z)^2 = \dots$
 - $x^2 + 9y^2 + 4z^2 - 6xy + 12xz - 4yz$
 - $x^2 + 9y^2 + 4z^2 - 6xy + 12xz - 4yz$
 - $x^2 + 9y^2 + 4z^2 - 6xy - 4xz + 12yz$
 - $9x^2 + y^2 + 4z^2 - 12xy + 24xz - 8yz$
 - $9x^2 + 4y^2 + 16z^2 - 12xy + 24xz - 8yz$

- $18a^5b^4 + 12a^2b^7 = \dots$
 - $4a^2b^4(3a^3 + 2b^3)$
 - $4ab^2(3a^4 + 2b^5)$
 - $6a^2b^4(3a^3 + 2b^3)$
 - $6a^3b^3(3a^2 + 2b^4)$
 - $6a^2b(3a + 2b^2)$

- $16x^2 - 49y^2 = \dots$
 - $(3x - y)(3x - 25y)$
 - $(3x - 5y)(3x + 5y)$
 - $(9x - y)(x - 25y)$
 - $(4x + 7y)(4x - 7y)$
 - $(4x + 49y)(4x - 49y)$

8. $2x^2 - 5x + 2 = \dots$
 (A) $(2x - 1)(x - 2)$
 (B) $(2x + 1)(x + 1)$
 (C) $(2x - 1)(x + 1)$
 (D) $(3x - 1)(x - 2)$
 (E) $(3x - 2)(x - 1)$
9. $\frac{5}{x-2} + \frac{9}{(x-2)^2} = \dots$
 (A) $\frac{5x-1}{(x-2)^2}$
 (B) $\frac{2x+4}{(x-2)^2}$
 (C) $\frac{3x-2}{(x-2)^2}$
 (D) $\frac{3x+1}{(x-2)^2}$
 (E) $\frac{4x-4}{(x-2)^2}$
10. $\frac{5x}{x^2 - 7x + 10} + \frac{2}{x-2} = \dots$
 (A) $\frac{21x+3}{x^2 - 7x + 10}$
 (B) $\frac{14+12}{x^2 - 7x + 10}$
 (C) $\frac{5x-3}{x^2 - 7x + 10}$
 (D) $\frac{5x-17}{x^2 - 7x + 10}$
 (E) $\frac{7x-10}{x^2 - 7x + 10}$
11. $(2x - 5)(2x - 7) = \dots$
 (A) $4x^2 + 4x - 35$
 (B) $4x^2 - 4x - 35$
 (C) $4x^2 + 4x + 35$
 (D) $4x^2 - 4x + 35$
 (E) $4x^2 - 24x + 35$
12. $(5x - 8y)^2 = \dots$
 (F) $25x^2 - 40xy + 64y^2$
 (G) $25x^2 - 80xy + 64y^2$
 (H) $5x^2 - 40xy + 8y^2$
 (I) $5x^2 - 80xy + 8y^2$
 (J) $10x^2 - 40y + 16y^2$
13. $(3p - 2q)^3 = \dots$
 (A) $27p^3 - 54p^2q + 36pq^2 - 8q^3$
 (B) $27p^3 - 18p^2q + 12pq^2 - 8q^3$
 (C) $27p^3 - 18p^2q + 18pq^2 - 8q^3$
 (D) $125p^3 + 75p^2q + 15pq^2 - q^3$
 (E) $125p^3 - 75p^2q + 15pq^2 - q^3$

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14. $(2a + 3b)^4 = \dots$
- (A) $a^4 + 12a^3b + 28a^2b^2 + 108ab^3 + 9b^4$
 - (B) $a^4 + 12a^3b + 54a^2b^2 + 108ab^3 + 81b^4$
 - (C) $81a^4 + 216a^3b + 216a^2b^2 + 96ab^3 + 16b^4$
 - (D) $16a^4 + 96a^3b + 216a^2b^2 + 216ab^3 + 81b^4$
 - (E) $16a^4 + 192a^3b + 432a^2b^2 + 432ab^3 + 81b^4$

15. $(2x - 3y - z)^2 = \dots$
- (A) $x^2 + 9y^2 + 4z^2 - 6xy + 12xz - 4yz$
 - (B) $x^2 + 9y^2 + 4z^2 - 6xy + 12xz - 4yz$
 - (C) $4x^2 + 9y^2 + z^2 - 12xy - 4xz + 6yz$
 - (D) $4x^2 + 9y^2 + z^2 - 12xy + 24xz - 8yz$
 - (E) $9x^2 + 4y^2 + 16z^2 - 12xy + 24xz - 8yz$

16. $20a^5b^4 + 15a^2b^7 = \dots$
- (A) $4a^2b^4(4a^3 + 3b^3)$
 - (B) $5ab^2(4a^4 + 3b^5)$
 - (C) $5a^2b^4(4a^3 + 3b^3)$
 - (D) $6a^2b^4(4a^3 + 3b^3)$
 - (E) $6a^3b^3(4a^2 + 3b^4)$

17. $36x^2 - 81y^2 = \dots$
- (A) $(12x - y)(3x + 81y)$
 - (B) $(6x - 9y)(6x + 9y)$
 - (C) $(9x - y)(4x + 81y)$
 - (D) $(6x - 27y)(6x + 3y)$
 - (E) $(18x + 9y)(2x - 9y)$

18. $3x^2 - 10x - 8 = \dots$
- (A) $(2x - 1)(x - 2)$
 - (B) $(2x + 1)(x + 1)$
 - (C) $(3x - 1)(x + 8)$
 - (D) $(3x - 2)(x + 4)$
 - (E) $(3x + 2)(x - 4)$

19. $\frac{5}{(x+3)^2} - \frac{2x}{(x+3)^3} = \dots$
- (A) $\frac{5x-1}{(x+3)^3}$
 - (B) $\frac{2x+4}{(x+3)^3}$
 - (C) $\frac{3x-2}{(x+3)^3}$
 - (D) $\frac{3x+1}{(x+3)^3}$
 - (E) $\frac{3x+15}{(x+3)^3}$

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20. $\frac{14x+1}{x^2-2x-15} - \frac{2}{x+3} = \dots$

(A) $\frac{12x+11}{x^2-2x-15}$

(B) $\frac{12x-9}{x^2-2x-15}$

(C) $\frac{5x-3}{x^2-2x-15}$

(D) $\frac{5x-17}{x^2-2x-15}$

(E) $\frac{7x-10}{x^2-7x+10}$

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