8-21-17 1st Trig

Can $9x + 5$ be simplified any? No (variable, #)

3 dogs + 10 dogs = 13 dogs

2 dogs + 3 cats + 5 dogs + 11 cats =

7 dogs + 14 cats

① $3x^3 + 2x + 4x^3 + 8x + 1 + 9 =$

$7x^3 + 10x + 10$

② $5x^2y + 8xy + 2xy + 5x + 2x^2y$

$7x^2y + 10xy + 5x$

③ $2x^2y + 3xy^2 + 5xy^2 - 10x^2y$

$-8x^2y + 8xy^2$

④ $(2x)(5x) + (6x)(3x)$

$10x^2 + 18x^2$

$28x^2$

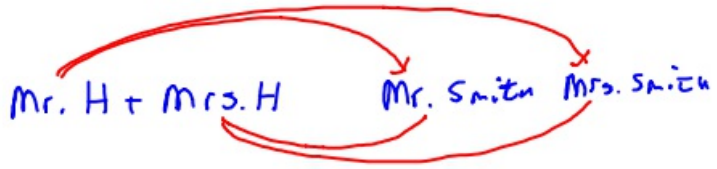
⑤ $(2n^3)^2 + 5n(n^5)$

$2n^3 \cdot 2n^3 + 5n \cdot n^5$

$4n^6 + 5n^6$

$9n^6$

⑥ $(n+2)(n-5)$



$(n+2)(n-5)$

$n^2 - 5n + 2n - 10$

$n^2 - 3n - 10$

⑦ $(n+2)(n^2+3n+5)$

$n^3 + 3n^2 + 5n + 2n^2 + 6n + 10$

$n^3 + 5n^2 + 11n + 10$

⑧ $(4x^3)^2(2x^4) - (x^2)^4(2x)^3$

$4x^3 \cdot 4x^3 \cdot 2x^4 - x^2 \cdot x^2 \cdot x^2 \cdot x^2 \cdot 2x \cdot 2x \cdot 2x$

$32x^{10} - 8x^{11}$

(9) $(2n-1)(5n+4)$

$10n^2 + 8n - 5n - 4$

$10n^2 + 3n - 4$

(10) $(3n^3)^2 \cdot 2n + (n^2)^3(5n)$

$3n^3 \cdot 3n^3 \cdot 2n + n^2 \cdot n^2 \cdot n^2 \cdot 5n$

$18n^7 + 5n^7$

$23n^7$

8-21-17 3rd Trig

Can you simplify

$4n + 8$ No.

↑ variable ↑ number

2 dogs + 4 dogs = 6 dogs

2 dogs + 3 cats + 5 dogs + 2 cats =

7 dogs + 5 cats

① $2n^3 + 6n + 5 + 8n + n^2 + 11n =$

$2n^3 + n^2 + 25n + 5$

② $5xy^2 + 6x^2y + 3x^2y - 2xy^2$

$3xy^2 + 9x^2y$

③ $3n(n+4) + (6n)^2$

$3n^2 + 12n + 6n \cdot 6n$

$3n^2 + 12n + 36n^2$

$39n^2 + 12n$

④ $(n+3)(n-5)$

Mr. H Mrs. H Mr. Smith Mrs. Smith

$(n+3)(n-5)$

$n^2-5n+3n-15$

$n^2-2n-15$

⑤ $(n+2)(n^2+3n+5)$

$n^3+3n^2+5n+2n^2+6n+10$

$n^3+5n^2+11n+10$

⑥ $(2n^2)^3 \cdot 5n + (3n^2)(5n^4)$

$3nn\ 5nnnn$

$2n^2 \cdot 2n^2 \cdot 2n^2 \cdot 5n + 15n^6$

$40n^7 + 15n^6$

⑦ $(3n^4)^2 + (2n^2)^4$

$3n^4 \cdot 3n^4 + 2n^2 \cdot 2n^2 \cdot 2n^2 \cdot 2n^2$

$9n^8 + 16n^8$

$25n^8$

(8) $(2n^2+3)(3n^2+5)$

$6n^4 + 10n^2 + 9n^2 + 15$

$6n^4 + 19n^2 + 15$

8-21-17 4th Trig

Simplify $4n + 6$

$4n$: variable; 6: #

Can't simplify

2 cats + 4 dogs + 2 dogs + 4 cats

= 6 dogs + 6 cats

① $8n^3 + 6n + 2n^2 + 6n + 5n^3 + n^2$

$13n^3 + 3n^2 + 12n$

② $5x^2y + 6xy^2 - 8xy^2 - 2x^2y$

$3x^2y - 2xy^2$

③ $4n^2 \cdot (3n)^2 + (5n^2)^2$

$4n^2 \cdot 3n \cdot 3n + 5n^2 \cdot 5n^2$

$36n^4 + 25n^4$

$61n^4$

④ $2n(3n^4)^2 + 3n^5 \cdot 2n^4$

$2n \cdot 3n^4 \cdot 3n^4 + 6n^9$

$18n^9 + 6n^9$

$24n^9$

⑤ $(n+5)(n+2)$

Mr. H Mrs. H Mr. Smith Mrs. Smith

$(n+5)(n+2)$

$n^2 + 2n + 5n + 10$

$n^2 + 7n + 10$

⑥ $(n+10)(n^2+8n+2)$

$n^3 + 8n^2 + 2n + 10n^2 + 80n + 20$

$n^3 + 18n^2 + 82n + 20$

⑦ $3n^3 \cdot 2n^2 + (5n)^2 + 3(2n^5)$

$6n^5 + 5n \cdot 5n + 6n^5$

$6n^5 + 25n^2 + 6n^5$

$12n^5 + 25n^2$

(8) $(3n^2)^2 5n^2 + (3n^3)^2$

$3n^2 \cdot 3n^2 \cdot 5n^2 + 3n^3 \cdot 3n^3$

$45n^6 + 9n^6$

$54n^6$