9-12-13

3rd Trig

Ch. 1 PT 2

(4) $4(x-2)-3(x-2)=-10$

$4x-8-3x+6=-10$

$x-2=-10$

$+2 \quad +2$

$x=-8$

Simplify $(x+5)^2$

$(x+5)(x+5)$

$x^2+5x+5x+25$

$x^2+10x+25$

(40) $(-2a^{-5})^2$

clean up

$\left(\frac{-2}{a^5}\right)^2 \cdot \frac{-2}{a^5} \cdot \frac{-2}{a^5} = \frac{4}{a^{10}}$

(45) $(2^5 \times 2^3)^9$

$(2\cdot2\cdot2\cdot2\cdot2\cdot2\cdot2\cdot2)^9$ $\quad (a^8)^9$

$(2^8)^9$

2^{72}

(41) $(2ma^2d^{-1}i)^{-3}$

clean up

$\left(\frac{2ma^2i}{d}\right)^{-1\cdot 3}$

$\left(\frac{d}{2ma^2i}\right)^3$

$\frac{d}{2ma^2i} \cdot \frac{d}{2ma^2i} \cdot \frac{d}{2ma^2i} = \frac{d^3}{8m^3a^6i^3}$

(46) 1000^{th} spot of $.\overline{2345678}$

1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 21 28 35 42 49 56

7

$\frac{1000}{7} = 142.857\overline{14}$

$142 \times 7 = 994$ 994

(8) $n^2y^2 + n^3y + 9n^2y^2 + n^3y$

$10n^2y^2 + 2n^3y$

(29) $\sqrt[4]{16x^4y^8}$

$\sqrt[4]{2 \cdot 2 \cdot 2 \cdot 2 \cdot x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y \cdot y \cdot y \cdot y \cdot y \cdot y}$

$2xyy = 2xy^2$

(44) $\frac{10 \pm \sqrt{200}}{10}$

$\sqrt{200} = \sqrt{2 \cdot 2 \cdot 5 \cdot 5}$

$2 \cdot 5\sqrt{2}$

$10\sqrt{2}$

$\frac{10 \pm 10\sqrt{2}}{10}$

$1 \pm \sqrt{2}$

(27) $\sqrt{-800}$

$\sqrt{-1 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 5 \cdot 5}$

800
8 100
4 2 10 10
2 2 2 5 5

$2 \cdot 5i\sqrt{2}$

$20i\sqrt{2}$

New Simplify $2(2n-1)-(3n-6)$

$4n-2-3n+6$

$n+4$

New $(n+1)(n+1)(n+1)$

$(n+1)(n^2+2n+1)$

9-12-13

4th Trig

New

$(n+5)^2$

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

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

$n^2+10n+25$

$(n+1)(n+1)(n+1)$

$n^2+n+n+1$

$(n^2+2n+1)(n+1)$

$n^3+n^2+2n^2+2n+n+1$

n^3+3n^2+3n+1

Ch. 1 PT 2 questions

(41) $(2ma^2d^{-1}i)^{-3}$

clean up

$\left(\frac{2ma^2i}{d}\right)^{-1\cdot 3}$

$\left(\frac{d}{2ma^2i}\right)^3$

$\frac{d}{2ma^2i}\cdot\frac{d}{2ma^2i}\cdot\frac{d}{2ma^2i}=\frac{d^3}{8m^3a^6i^3}$

(46) What is 1000^{th} digit in $.\overline{2345678}$

1 2 3 4 5 6 7

8 9 10 11 12 13 14

15 16 17 18 19 20 21

28

35

42

⋮

$\frac{1000}{7}=142.85\ldots$ 994

$142\times 7=994$

(37) $\dfrac{c^3 w^{-5} h^{-1}}{c^{-1} w^2 h}$

$\dfrac{c^3 c}{w^5 w^2 h h}$

$\dfrac{c^4}{w^7 h^2}$

(13) $(2n^2y^3)^2 + 3n(n^4)y^6$

$2n^2y^3 \cdot 2n^2y^3 + 3n\,nnnn\,y^6$

$4n^4y^6 + 3n^5y^6$

(36) $n^{-30} \cdot y^{50} \cdot n^{-20} \cdot y^{-30}$

$\dfrac{y^{50}}{n^{30} n^{20} y^{30}} = \dfrac{y^{20}}{n^{50}}$

(New) Which digit in

- $\overline{1234}$ is in the 300th spot. (4)

1 2 3 4
5 6 7 8
9 10 11 12
13 14 15 16
300

$\dfrac{300}{4} = 75$

(New) $(3n+1)(5n^2+2n+10)$

$15n^3 + 6n^2 + 30n + 5n^2 + 2n + 10$

$15n^3 + 11n^2 + 32n + 10$

(New) $(n+3)^2$

$(n+3)(n+3)$

$n^2 + 3n + 3n + 9$

$n^2 + 6n + 9$