7th Grade Review Answers

Part 1 :

#1 $3a - 5y + 7a - 4y$ Ans: $10a - 9y$

#2 $4ab - 6ba - 2ab + 9ab$ Ans: $5ab$ or $5ba$

#3 $-3x^2 - 4x + 6x^2 - 2x^3$ Ans: $3x^2 - 4x - 2x^3$

#4 $9b^3 - 2b - 6b^2 - 10b^3$ Ans: $-b^3 - 2b - 6b^2$

Part 2 :

#5 $(-a \times a) + a + (a \times a \times a)$ Ans: $-a^2 + a + a^3$

#6 $(w \times w \times w) + w + (w \times w)$ Ans: $w^3 + w + w^2$

#7 $3x^2y \times \frac{5}{3}x^4y^2$ Ans: $5x^6y^3$

#8 $\frac{4}{5}a^2b^4 \times 25a^3b$ Ans: $20a^5b^5$

#9 $\frac{3}{4}c^2a \times 2\frac{2}{3}ca^2$

$\frac{3}{4} \times \frac{8}{3} \times c^2 \times c \times a \times a^2$ Ans: $2c^3a^3$

#10 $\frac{3}{9}\frac{x^2}{x^2}\frac{y^5}{y^2}$ Ans: $\frac{1}{2}y^3$

#11 $-3(x-2)$ Ans: $-3x+6$

#12 $2x(3x-1)$ Ans: $6x^2 - 2x$

#13 $\frac{2}{3}x(9x^4 - 18x - 6)$ Ans: $6x^5 - 12x^2 - 4x$

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

14 ~~2/3~~ $\frac{4}{5}(-15x - 25) + 5$

$\frac{4}{5}(x - 15x) - \frac{4}{5}(25) + 5$

$-12x - 20 + 5$

$-12x - 15$

Ans: $-12x - 15$

#15 $-(y + 1) + 2(3y + 7)$

$-y - 1 + 6y + 14$

Ans: $5y + 13$

#16 $\frac{2}{3}(3x - 4) - (3x + 5)$

$\frac{2x - 8}{3} - \left(\frac{(3x + 5)}{1}\right)^{\times 3}_{\times 3}$ LCM = 3

$\frac{2x - 8 - 9x - 15}{3}$

$\frac{-7x - 23}{3}$

Ans: $\frac{-7x - 23}{3}$

#17. $2 - 4(2b + 5)$ Distribute first

$2 - 8b - 20$

$-8b - 18$

Ans: $-8b - 18$

#18. $\frac{1}{2} - 5(w + 3)$

$\frac{1}{2} - 5w + 15$

$-5w - 14\frac{1}{2}$

Ans: $-5w + -14\frac{1}{2}$

Part 3

#19 $x - 3 = 20$

$x = 23$

Ans: $x = 23$

#20 $-5 - r = -13$

$-r = -13 + 5$

$-r = -8$

$r = 8$

Remember to carry down the negative

Ans: $r = 8$

#21 $-34 + 2y = 12$

$2y = 12 + 34$

$2y = 46$

$y = 23$

Ans: $y = 23$

#22 $-23 = -3 - y$

$-23 + 3 = -y$

$-20 = -y$

$20 = y$

Ans: $y = 20$

#23 $-2(x + 5) = -4$

$-2x - 10 = -4$

$-2x = -4 + 10$

$\frac{-2x}{-2} = \frac{6}{-2}$

$x = -3$

Ans: $x = -3$

#24 $4 - 3(2y - 3) = -2$

$4 - 6y + 9 = -12$

$-6y + 13 = -12$

$-6y = -12 - 13$

$-6y = -25$

$y = 25/6$

Ans: $y = 4\frac{1}{6}$

25. $\frac{4(2n-5)}{3} = 20$

$8n - 20 = 60$

$8n = 60 + 20$

$8n = 80$

$n = 10$

Ans: $n = 10$

26. $\frac{1}{2}(x-3) + \frac{1}{5}(5x-4) = -1$

$\frac{x-3}{2} + \frac{5x-4}{2} = -1$

$\frac{x-3+5x-4}{2} = -1$

$2 \times \frac{6x-7}{2} = (-1) \times 2$

$6x - 7 = -2$

$6x = -2 + 7$

$6x = 5$

$x = 5/6$

Ans $x = 5/6$

27. $\frac{3}{2}(-3x-5) + \frac{4}{5}(3x+1) = -10$

$5 \times \left(\frac{3(-3x-5)}{2}\right) + \left(\frac{4(3x+1)}{5}\right)^{\times 2} = -10$

$\frac{15(-3x-5) + 8(3x+1)}{10} = -10$

$\frac{-45x - 75 + 24x + 8}{10} = -10$

$\frac{-18x - 67}{10} = -10$

$-18x - 67 = -100 \longrightarrow -18x = -33$

Ans = $+33/+18$

Part 4

28 $2n + 5 = 23$

$2n = 23 - 5$

$\frac{2n}{2} = \frac{18}{2}$

$n = 9$

Ans $n = 9$

29 $4 \times \left(\frac{n}{4}\right) = 13 \times 4$

$n = 52$

Ans $n = 52$

30 $\frac{n}{2} + 1 = 7$

$\frac{n}{2} = 7 - 1$

$2 \times \left(\frac{n}{2}\right) = 6 \times 2$

$n = 12$

Ans $n = 12$