**PING YI SECONDARY SCHOOL**

*Perseverance Yields Success*

Name Hanwa Class 3I2

Subject PRACTICE 26. No. 11 Date 12Jan2009

1a. $3a, 9a$

$\therefore$ LCM $= 3 \times a \times 3$

$= 9a$ #

| | |
|---|---|
| 3 | 3a, 9a |
| a | a, 3a |
| 3 | 1, 3 |
| | 1, 1 |

1b. $p, 4q$

$\therefore$ LCM $= 2 \times 2 \times p \times q$

$= 4pq$ #

| | |
|---|---|
| 2 | p, 4q |
| 2 | p, 2q |
| p | p, q |
| q | 1, q |
| | 1, 1 |

1c. $3m+6, m+2$

$3(m+2)$

$\therefore$ LCM $= 3(m+2)$ #

| | |
|---|---|
| 3 | 3(m+2), (m+2) |
| (m+2) | (m+2), (m+2) |
| | 1, 1 |

1d. $k, k^2+k$

$k(k+1)$

$\therefore$ LCM $= k(k+1)$

| | |
|---|---|
| k | k, k(k+1) |
| (k+1) | 1, (k+1) |
| | 1, 1 |

1e. $(y+1), (y-1)$

$\therefore$ LCM $= (y+1)(y-1)$ #

| | |
|---|---|
| (y+1) | (y+1)(y-1) |
| (y-1) | 1, (y-1) |
| | 1, 1 |

1f. $4, 2(x-1)$

$\therefore$ LCM $= 2 \times 2 \times (x-1)$

$= 4(x-1)$ #

| | |
|---|---|
| 2 | 4, 2(x-1) |
| 2 | 2, (x-1) |
| (x-1) | 1, (x-1) |
| | 1, 1 |

1g) $(y^2-9), (y+3)$ $a^2-b^2 = (a+b)(a-b)$

$y^2-3^2 = (y+3)(y-3), (y+3)$

$\therefore$ LCM $= (y+3)(y-3)$ #

| | |
|---|---|
| (y+3) | (y+3)(y-3), (y+3) |
| (y-3) | (y-3), 1 |
| | 1, 1 |

1h) $2y^2-5y-3, y-3$

$(2y+1)(y-3), (y-3)$

$\therefore$ LCM $= (y-3)(2y+1)$

| | | |
|---|---|---|
| 2y | +1 | +y |
| y | -3 | -6y |
| 2y2 | -3 | -6y |

| | |
|---|---|
| (y-3) | (2y+1)(y-3), (y-3) |
| (2y+1) | (2y+1), 1 |
| | 1, 1 |

FALCON

2a. $\frac{5}{x} + \frac{7}{x}$

$= \frac{5+7}{x}$

$= \frac{12}{x}$ #

2b. $\frac{6}{5x} + \frac{4}{5x}$

$= \frac{10}{5x} + \frac{2}{5x}$ #

2c. $\frac{5x-4}{x+8} - \left(\frac{2x-1}{x+8}\right)$

$= \frac{5x-4-2x+1}{x+8}$

$= \frac{3x-3}{x+8}$

$= \frac{3(x-1)}{x+8}$ #

2d. $\frac{3x+5}{x-6} - \left(\frac{x+17}{x-6}\right)$

$= \frac{3x+5-(x+17)}{x-6}$

$= \frac{3x+5-x-17}{x-6}$

$= \frac{2x-12}{x-6}$

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

$= 2$ #

2e. $\frac{x^2}{x+7} - \left(\frac{49}{x+7}\right)$

$= \frac{x^2-49}{x+7}$

$= x-7$ #

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

$= x-7$

2f. $\frac{x^2}{x-2} - \left(\frac{4}{x-2}\right)$

$= \frac{x^2-4}{x-2}$

$= x+2$ #

$\frac{x^2-2^2}{x-2}$

$= \frac{(x-2)(x+2)}{x-2}$

$= x+2$,

2g. $\frac{x^2}{x+1} + \left(\frac{3x-4}{x+1}\right)$

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

$= \frac{(x-4)(x+4)(x+1)}{(x+1)}$

$= x+4$ #

| | | |
|---|---|---|
| $x$ | $+4$ | $+4x$ |
| $x$ | $-1$ | $-1x$ |
| $x^2$ | $-4$ | $3x$ |

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2h) $\frac{x^2-x}{2x+1} + \frac{x^2-3}{2x+1}$

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

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

$= \frac{(2x-3)(x+1)}{2x+1}$ #