

FEB. 8th
Sub-Work

[5th Block]

Act. #23

* Show All Work.

I. Solve the following equations.

① $3(2x+5) = 10$

④ $-2x - x + 6 = 15$

② $8x + 4 = 12x - 8$

⑤ $-3(x-7) - 2(x-3) = 18$

③ $-5(x+3) = -4x + 12$

⑥ $8x - 9x + 3 = 5x - 2$

II. Factor the following equations.

⑦ $x^2 + 10x + 24$

⑪ $6m^2 + m - 5$

⑧ $4m^2 + 20m + 21$

⑫ $5b^2 - 13b + 6$

⑨ $15x^2 - 11x + 2$

⑬ $2m^2 + 15m + 18$

⑩ $2x^2 - 39x + 15$

⑭ $x^2 - 5x - 6$

III. Simplify the following Rational Expressions

⑮ $\frac{x^2 + 8x + 12}{x^2 + 3x - 18}$

⑰ $\frac{x^2 - 7x - 30}{x^2 - 5x - 24}$

⑯ $\frac{v^2 - 5v - 14}{v^2 + 4v + 4}$

⑱ $\frac{m^2 - 3m - 40}{m^2 - 11m + 24}$

IV. Find the missing side.

(19) $A = 45^\circ, b = 10, c = 15$

(20) $B = 89^\circ, a = 23, c = 27$

(21) $C = 102^\circ, a = 49, b = 37$

V. Simplify: Show all work.

(22) $3\sqrt{120}$

(26) $\sqrt{252}$

(23) $-5\sqrt[3]{135}$

(27) $\sqrt[3]{1080}$

(24) $\sqrt[5]{224}$

(28) $6\sqrt{225}$

(25) $6\sqrt[4]{240}$

(29) $\sqrt[3]{448}$