

① $6\frac{1}{5} - 2\frac{1}{3}$

$= \frac{31}{5} - \frac{7}{3}$

$= \frac{93}{15} - \frac{35}{15}$

$= \frac{58}{15}$

$= \underline{\underline{3\frac{13}{15}}}$

② $11 - 2(1 + 3x) < 39$

$11 - 2 - 6x < 39$

$9 - 6x < 39$

$-9 \quad -9$

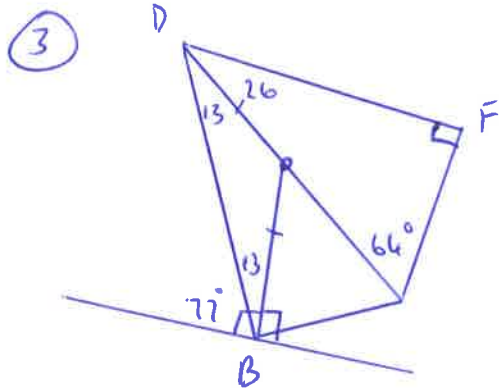
$-6x < 30$

CAS

$6x > -30$

$\underline{\underline{x > -5}}$

negative letter means symbol reverses.



$\angle BDF = 13 + 26 = \underline{\underline{39^\circ}}$

④ $(x-4)(x^2+x-2)$

$= x(x^2+x-2) - 4(x^2+x-2)$

$= x^3 + x^2 - 2x - 4x^2 - 4x + 8$

$= \underline{\underline{x^3 - 3x^2 - 6x + 8}}$

⑤

x	$(x - \bar{x})$	$(x - \bar{x})^2$
1	-2	4
2	-1	1
2	-1	1
2	-1	1
8	5	25
		<u>32</u>

$\bar{x} = \text{mean} = \frac{15}{5} = 3$

S.D. = $\sqrt{\frac{32}{4}}$

$= \sqrt{8}$

$\therefore a = \underline{\underline{8}}$

⑥ $y = 4 \sin 3x^\circ$

$\underline{\underline{a=4}} \quad \underline{\underline{b=3}}$

⑦ $y = (x+a)^2 + b$

min T.P is (2, -4)

a) so $y = (x-2)^2 - 4$

$\underline{\underline{a=-2}}, \underline{\underline{b=-4}}$

b) $x-2 = 0$
+2 +2

$\underline{\underline{x=2}}$ is axis of symmetry.

(11) $3x + 2y = 17$ - (1) $\times 2$
 $2x + 5y = 4$ - (2) $\times -3$

$6x + 4y = 34$ - (3)
 $-6x - 15y = -12$ - (4)

Add $-11y = 22$
 $y = -2$

Put $y = -2$ into (1)

$3x + 2y = 17$
 $3x + 2(-2) = 17$
 $3x - 4 = 17$
 $+4 \quad +4$
 $3x = 21$
 $x = 7$

(7, -2)

(12) $\frac{x^2 - 4x}{x^2 + x - 20}$
 $= \frac{x(x-4)}{(x+5)(x-4)}$
 $= \frac{x}{x+5}$

(13) $\frac{4}{\sqrt{8}} \times \frac{\sqrt{8}}{\sqrt{8}} = \frac{4\sqrt{8}}{8} = \frac{\sqrt{8}}{2}$ but $\sqrt{8} = 2\sqrt{2}$
 $= \frac{2\sqrt{2}}{2} = \underline{\underline{\sqrt{2}}}$

or $\sqrt{8} = \sqrt{4 \times 2} = 2\sqrt{2}$

So $\frac{4}{\sqrt{8}} = \frac{4}{2\sqrt{2}} = \frac{2}{\sqrt{2}} \times \frac{\sqrt{2}}{\sqrt{2}} = \frac{2\sqrt{2}}{2} = \underline{\underline{\sqrt{2}}}$

(14) $8^{5/3}$
 $= (3\sqrt{8})^5$ or $(8^{1/3})^5$
 $= 2^5$ $= 2^5$
 $= \underline{\underline{32}}$ $= \underline{\underline{32}}$