1-1 Extra Help

14. $(5^2 - 20 + \sqrt{32 \div 2}) \div 3$

$= (25 - 20 + \sqrt{16}) \div 3$

$= (25 - 20 + 4) \div 3$

$= 9 \div 3$

$= 3$

20. $15 + \left[\frac{3}{4} \times (15 - 3)\right] - 6 \div (3)(4)$

$= 15 + \left(\frac{3}{4} \times \frac{12}{1}\right) - 6 \div (3)(4)$

$= 15 + 9 - 6 \div (3)(4)$

$= 15 + 9 - 2(4)$

$= 15 + 9 - 8$

$= 16$

$\frac{3 \times 3}{1 \times 1} = \frac{9}{1}$

1-2

1e) $2(3x^2-2x+7)-(3x+4)-3x(x-5)$

$= 6x^2-4x+14-3x-4-3x^2+15x$

$= 3x^2+8x+10$

2b) $P = (n+5)+(n-4)+(n+4)+(2n-1)+(3n+11)$

$= n+5+n-4+n+4+2n-1+3n+11$

$= 8n+15$

1-3

#11 $3(b+2)+2(b-3)=-5$

$3b+6+2b-6=-5$

$\frac{5b}{5}=\frac{-5}{5}$

$\boxed{b=-1}$

#23 $\frac{(x+1)}{4}+\frac{(2x+3)}{3}=x-1$ (×12)

$3(x+1)+4(2x+3)=12x-12$

$3x+3+8x+12=12x-12$

$11x+15=12x-12$

$11x-12x=-12-15$

$\frac{-1x}{-1}=\frac{-27}{-1}$

$x=27$

B Part

1d) $A=\frac{h}{2}(a+b)$ (×2)

$\frac{2A}{(a+b)}=\frac{h(a+b)}{(a+b)}$

$h=\frac{2A}{(a+b)}$

$A=12, a=3, b=4$ (mm)

$h=\frac{2(12)}{(3+4)}$

$h=\frac{24}{7}$ mm

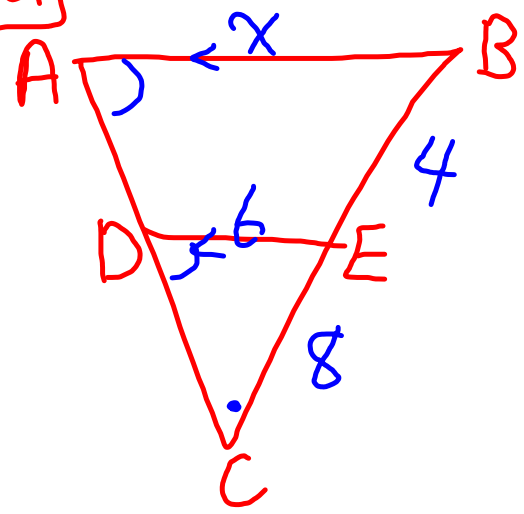
1-4

#4 $\frac{25}{1}\ \begin{matrix}(\text{gas})\\(\text{oil})\end{matrix} = \frac{x}{0.5}$

$1x = 12.5$

$\therefore$ 12.5 L of gas is required

3a) Sim Δ's



In ΔABC & ΔDEC

$\angle ACB = \angle DCE$ (·)

$\angle BAC = \angle EDC$ Common

(PLT-F)

$\therefore \Delta ABC \sim \Delta DEC$ (AA~)

$\frac{AB}{DE} = \frac{BC}{EC}$

$\frac{x}{6} = \frac{12}{8}$ (8+4)

$\frac{8x}{8} = \frac{72}{8}$

$x = 9$