

Q.1

(a) Solve the simultaneous equations:

① $2f + \frac{2}{3}g + 1 = 0$

② $f + \frac{1}{2}g + 1 = 0$

<p>① $2f + \frac{2}{3}g + 1 = 0$</p> <p>$3(2f) + 3(\frac{2}{3}g) + 3(1) = 3(0)$</p> <p>$6f + 2g + 3 = 0$</p> <p>$6f + 2g = -3$</p> <p>* Put 2 equations together & solve!! *</p> <p>$6f + 2g = -3$</p> <p>$2f + 1g = -2 \quad (\times -2)$</p> <p>$6f + 2g = -3$</p> <p>$-4f - 2g = 4$</p> <hr/> <p>$2f = 1$</p> <p>$f = \frac{1}{2}$</p>	<p>② $f + \frac{1}{2}g + 1 = 0$</p> <p>$2(f) + 2(\frac{1}{2}g) + 2(1) = 2(0)$</p> <p>$2f + 1g + 2 = 0$</p> <p>$2f + 1g = -2$</p> <p><u>Find g!</u></p> <p>$6f + 2g = -3$</p> <p>$f = \frac{1}{2}$</p> <p>$6(\frac{1}{2}) + 2g = -3$</p> <p>$3 + 2g = -3$</p> <p>$2g = -3 - 3$</p> <p>$2g = -6$</p> <p>$g = -\frac{6}{2}$</p> <p>$g = -3$</p>
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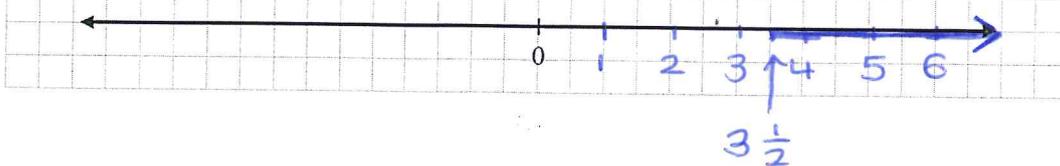
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(b) Solve the following inequality, and show the solution set on the number line below.

$5 - \frac{3}{4}x \leq \frac{19}{8}$

Lcm of 4 & 8 = 8.

<p>$8(5) - 8(\frac{3}{4}x) \leq 8(\frac{19}{8})$</p> <p>$40 - 2(3x) \leq 19$</p> <p>$40 - 6x \leq 19$</p> <p>$-6x \leq 19 - 40$</p>	<p>$-6x \leq -21$</p> <p>$\frac{-6x}{-6} \geq \frac{-21}{-6}$</p> <p>$x \geq 3\frac{1}{2}$</p>
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