Mathematics9 Date _____

Unit 8 Solving Equations & Inequalities
8.3 Distribution Equations

Ex. Solve:

a) $3(d + 0.4) = -3.9$

$3d + 1.2 = -3.9$
$-1.2 \quad -1.2$

$\frac{3d}{3} = \frac{-5.1}{3}$

$\boxed{d = -1.7}$

b) $\frac{2}{5}(t - 1) = \frac{3}{2}$ denominator *elimination

$4(t-1) = 15$
$4t - 4 = 15$
$+4 \quad +4$

$\frac{4t}{4} = \frac{19}{4}$

$\boxed{t = 19/4}$

$10\left(\frac{2}{5}t\right) - 10(1) = \left(\frac{3}{2}\right)10$

c) $-2(0.1e - 0.6) = 4.2$

$-0.2e + 1.2 = 4.2$
$-1.2 \quad -1.2$

$\frac{-0.2e}{-0.2} = \frac{3}{-0.2}$

$\boxed{e = -15}$

d) $\left(\frac{c+2}{3}\right)6 = \left(\frac{-5}{2}\right)6$ * $\frac{1}{3}(c+2) = \frac{-5}{2}$

$2(c+2) = -15$
$2c + 4 = -15$
$-4 \quad -4$

$\frac{2c}{2} = \frac{-19}{2}$

$\boxed{c = -19/2}$

Ex. The average daily temperature on a certain day is −1.5°C. If the high temperature for that day is 1.3°C, determine the low temperature.

$\frac{\text{low} + \text{high}}{2} = \text{average}$

$2\left(\frac{l + 1.3}{2}\right) = (-1.5)2$

$l + 1.3 = -3$
$-1.3 \quad -1.3$

$l = \boxed{-4.3°C}$

Practice: pg. 319/ # 7 – 9, 11, 12, 14, 17, 18, 22, 24