22.) $S = \dfrac{a_1}{1-r}$ $= \dfrac{\frac{14}{5}}{1-\frac{2}{5}}$

$\displaystyle\sum_{i=1}^{\infty} 7\left(\dfrac{2}{5}\right)^i$ $\qquad r = \dfrac{2}{5}$ $\qquad a_1 = \dfrac{14}{5}$

$a_1 = 7 \cdot \left(\dfrac{2}{5}\right)^1$ $\qquad a_2 = 7 \cdot \left(\dfrac{2}{5}\right)^2$ $\qquad \dfrac{28}{25} \div \dfrac{14}{5}$

$a_1 = \dfrac{14}{5}$ $\qquad a_2 = 7 \cdot \dfrac{4}{25}$ $\qquad \dfrac{28}{25} \cdot \dfrac{5}{14} = \dfrac{2}{5}$

$\qquad\qquad a_2 = \dfrac{28}{25}$

14.) $Rt = D$

$35t = D$

$55(10-t) = D$

$35t + 55(10-t) = 436$

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$10.)$ $\dfrac{i}{i}$ $\dfrac{(-0.9063 + 0.4226i)}{0 + i} \cdot \dfrac{1}{i}$ $\cdot \dfrac{1}{i}$

$\dfrac{-0.9063}{i} + 0.4226$

$\boxed{-0.9063 + 0.4226i}$ 　$\boxed{A}$

$36.)$ $x = 7t - 5$

$\underline{+5 \qquad\quad +5}$

$\dfrac{x+5}{7} = \dfrac{7t}{7} = \dfrac{7t}{7}$

$t = \dfrac{1}{7}x + \dfrac{5}{7}$

$y = 5\left(\dfrac{1}{7}x + \dfrac{5}{7}\right) + 5$

$y = \dfrac{5}{7}x + \dfrac{25}{7} + 5$

$\dfrac{25}{7} + \dfrac{35}{7} = \dfrac{60}{7}$

$\boxed{y = \dfrac{5}{7}x + \dfrac{60}{7}}$ 　$\boxed{C}$

38.) $(x-5)^2 + y^2 = 25$

$x^2 - 10x + 25 + y^2 = 25$

$x^2 + y^2 - 10x + 25 = 25$

$r^2 - 10x = 0$

$r^2 - 10(r\cos\theta) = 0$

$r^2 - 10r\cos\theta = 0$

$\dfrac{r^2}{r} = \dfrac{10r\cos\theta}{r}$

$r = 10\cos\theta$ B

18.) $\begin{bmatrix} -3 & 5 & 2 \end{bmatrix} \cdot \begin{pmatrix} -4 \\ -3 \\ -5 \end{pmatrix}$

$(-3 \cdot -4) + 5(-3) + 2(-5)$

$12 - 15 - 10 = -13$

B