



Subject/Topic:

Date:

$$\begin{aligned} 12(i) \text{ Vert. shift from Q to P} &= \frac{1}{5} \times 15 \\ &= 3 \text{ (since } PQ:QR=1:4\text{)} \\ &\quad \text{units} \end{aligned}$$

$$Q = (0, 12)$$

Horizontal shift from P to Q = 2 units

Horizontal shift from P to R = 10 units

Horizontal shift from P to S = 20 units

(since modulus graphs ~~are~~ technically have
a line of symmetry)

$$\begin{aligned} x\text{-coordinate of S} &= -2 + 20 \\ &= 18 \end{aligned}$$

$$\begin{aligned} (ii) \downarrow x\text{-coordinate of R} &= -2 + 10 \\ &= 8 \end{aligned}$$

$$R(8, 0)$$

$$\begin{aligned} \text{Gradient} \\ \text{Equation of RS} &= \frac{15-0}{18-8} \\ &= \frac{3}{2} \end{aligned}$$

$$y = \frac{3}{2}x + c$$

$$0 = \frac{3}{2}(8) + c$$

$$c = -12$$

$$y = \frac{3}{2}x - 12$$

Therefore, $y = \left| \frac{3}{2}x - 12 \right|$ is the curve with $a = \frac{3}{2}$ and $b = 12$

Tuition classes for English, Math (including E Maths & A Maths), Science (including combined science [phy/chem/bio]), Physics, Chemistry, Biology, Social Studies/Geography/History and Principles of Accounts (POA). Secondary 1 to Secondary 4.

