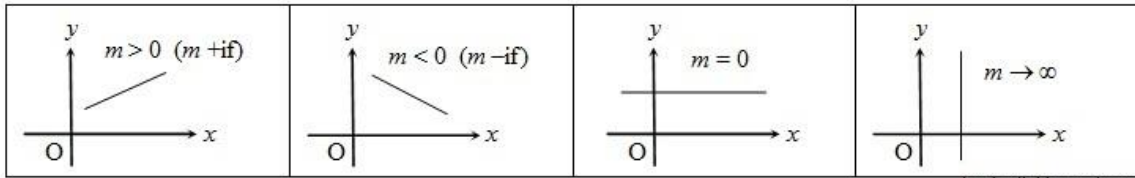


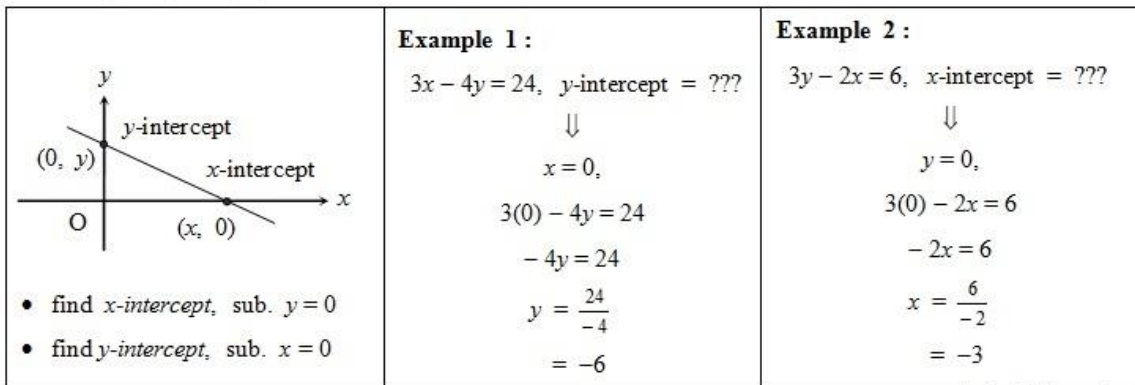
(16) THE STRAIGHT LINE GARIS LURUS

- (a) Type of straight line and their respective gradient, m
Jenis Garis Lurus, Kecerunan, m



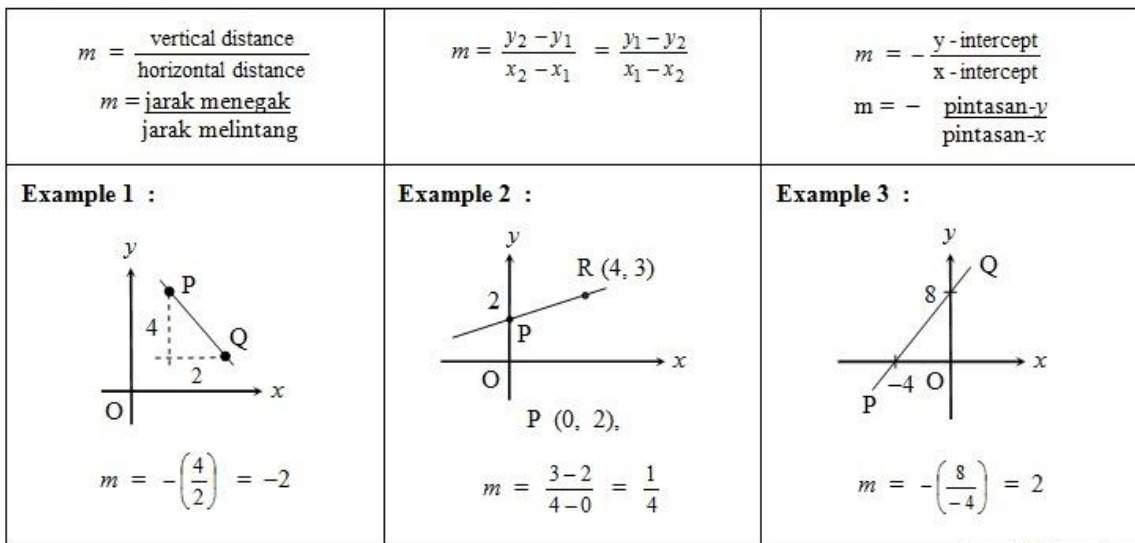
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- (b) y -intercept (c), and x -intercept of a straight line
Pintasan pada paksi- y , c



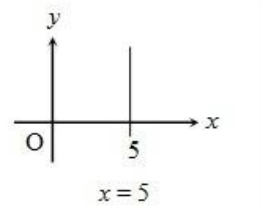
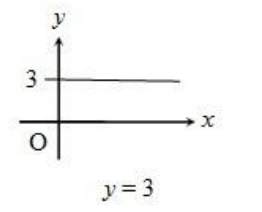
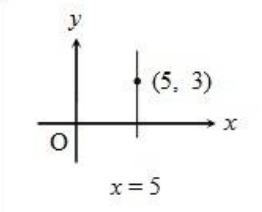
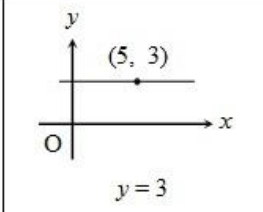
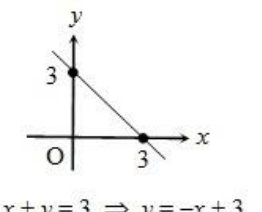
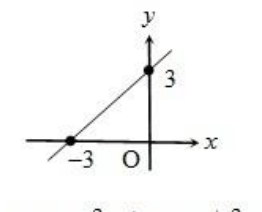
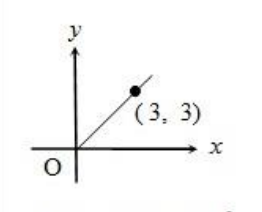
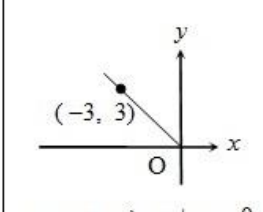
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- (c) Gradient of a straight line, m
Kecerunan, m



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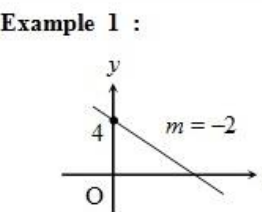
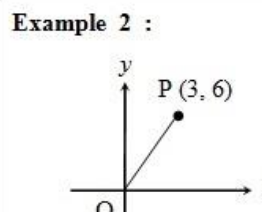
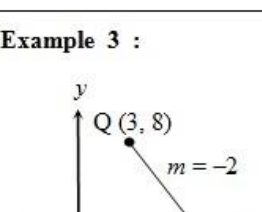
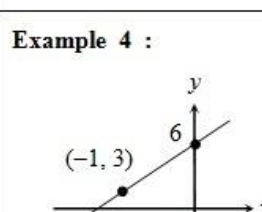
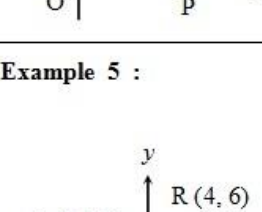
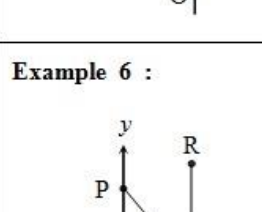
(d) Equation of a straight line

 $x=5$	 $y=3$	 $x=5$	 $y=3$
 $x+y=3 \Rightarrow y=-x+3$	 $y-x=3 \Rightarrow y=x+3$	 $y=x \Rightarrow x-y=0$	 $y=-x \Rightarrow x+y=0$

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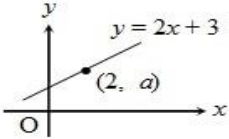
(e) Form equation of a straight line, $y=mx+c$, where $m = \text{gradient}$
 $c = y\text{-int except}$

Membentuk persamaan garis lurus, $y=mx+c$, dgn, m ialah kecerun dan c adalah pintasan pd paksi-y

Example 1 :  $y=mx+c$ $y=-2x+4$	Example 2 :  $m = \frac{6-0}{3-0} = 2$ $y=mx+c$ $y=2x$
Example 3 :  $y=mx+c$ $8=-2(3)+c$ $8=-6+c$ $8+6=c$ $14=c$ $y=-2x+14$	Example 4 :  $y=mx+c$ $3=m(-1)+6$ $3=-m+6$ $m=6-3$ $m=3$ $y=3x+6$
Example 5 :  $m = \frac{6-2}{4-(-4)} = \frac{1}{2}$ $y=mx+c$ $6 = \frac{1}{2}(4)+c$ $6=2+c$ $4=c$ $y = \frac{1}{2}x+4$	Example 6 :  $y=0,$ $2x+0=5$ $2x=5$ $x = \frac{5}{2}$ equation of QR = ???

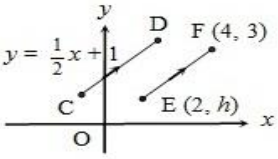
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f) Solve problems involving the equation of a straight line – Penyelesaian Masalah

<p>Example 1 :</p>  <p style="text-align: center;">$a = ???$</p>	<p>Example 2 :</p> $2x - 7y = 14, \quad m = ???$ $-7y = -2x + 14$ $7y = 2x - 14$ $y = \frac{2}{7}x + 2$ $\therefore m = \frac{2}{7}$
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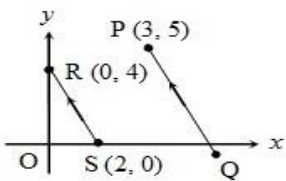
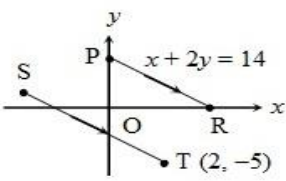
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(g) Parallel lines – Garis Selari, $m_1 = m_2$

<p>Example 1 :</p> <p>$2y = x + 6$ is parallel to $4y = px + 9$, $p = ???$</p> $2y = x + 6 \qquad 4y = px + 9 \qquad \frac{1}{2} = \frac{p}{4}$ $y = \frac{1}{2}x + 3 \qquad y = \frac{p}{4}x + \frac{9}{4} \qquad 2p = 4$ $m_1 = \frac{1}{2} \qquad m_2 = \frac{p}{4} \qquad p = \frac{4}{2}$ $p = 2$	<p>Example 2 :</p>  <p style="text-align: center;">$h = ???$</p>
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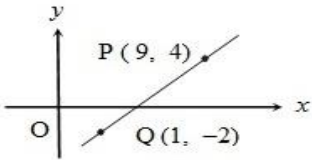
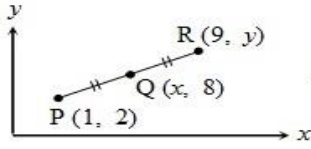
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(h) Form equation of a parallel line – Menerbitkan Persamaan dari Garis Selari

<p>Example 1 :</p>  <p style="text-align: center;">equation of PQ = ???</p>	<p>Example 2 :</p>  <p style="text-align: center;">equation of ST = ???</p>
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(i) Distance – Jarak, Midpoint – Titik Tengah

<p style="text-align: center;">$Jarak = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$</p>	<p style="text-align: center;">Titik Tengah, $(x, y) = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$</p>
<p>Example :</p>  <p style="text-align: center;">distance PQ = $\sqrt{(9-1)^2 + [4-(-2)]^2}$</p> <p style="text-align: center;">= 10</p>	<p>Example :</p>  <p style="text-align: center;">$\Rightarrow x = ???, y = ???$</p> $\frac{1+9}{2} = x \qquad \frac{2+y}{2} = 8$ $5 = x \qquad 2+y = 16$ $y = 14$

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