1 Rearrange $y = \sqrt{w^3}$ to make w the subject.

Circle your answer.

[1 mark]

$w = y^6$ $w = \sqrt[3]{y^2}$ $w = \sqrt{y^3}$ $w = y^5$

1

2 Rearrange $y = \frac{1}{\sqrt{x+1}}$ to make x the subject.

[3 marks]

$y(\sqrt{x+1}) = 1$ (1)

$\sqrt{x+1} = \frac{1}{y}$

$x+1 = \left(\frac{1}{y}\right)^2$ (1)

$x+1 = \frac{1}{y^2}$

$x = \frac{1}{y^2} - 1$ (1)

Answer $x = \frac{1}{y^2} - 1$

3 Rearrange $y = \frac{5x + 9}{x}$ to make x the subject.

[4 marks]

$yx = 5x + 9$ (1)

$yx - 5x = 9$ (1)

$(y-5)x = 9$ (1)

$x = \frac{9}{y-5}$ (1)

Answer $x = \frac{9}{y-5}$

4 Rearrange $y = \frac{x+8}{x}$ to make x the subject.

[3 marks]

$yx = x + 8$ (1)

$yx - x = 8$

$x(y-1) = 8$ (1)

$x = \frac{8}{y-1}$ (1)

Answer $x = \frac{8}{y-1}$

5 $a \times b^4 = c$

Circle the correct expression for a.

[1 mark]

$\frac{c}{\sqrt[4]{b}}$ $\frac{c}{b^{-4}}$ $\left(\frac{c}{b}\right)^4$ $\frac{c}{b^4}$ (1)

6 Rearrange $9m + 4(2m - 1) = p^2 + pm$ to make m the subject.

[4 marks]

$9m + 8m - 4 = p^2 + pm$ (1)

$9m + 8m - pm = p^2 + 4$

$17m - pm = p^2 + 4$ (1)

$m(17 - p) = p^2 + 4$ (1)

$m = \dfrac{p^2 + 4}{17 - p}$ (1)

Answer $m = \dfrac{p^2 + 4}{17 - p}$

7 Rearrange $y = \frac{3x+7}{x}$ to make x the subject.

[4 marks]

$yx = 3x + 7$ ✓(1)

$yx - 3x = 7$ ✓(1)

$x(y-3) = 7$ ✓(1)

$x = \frac{7}{y-3}$ ✓(1)

Answer $x = \frac{7}{y-3}$