

Name:

Class/Set:

Making x the Subject - Medium

Malvern College

1: Rearrange to make x the subject:

a) $y = \sqrt{\frac{x-4}{7}}$

b) $y = 5\sqrt{x} - 7$

c) $y = \frac{x^2 + 5}{9}$

d) $y = 8x^2 + 5$

e) $y = \sqrt{7x + 6}$

f) $y = \sqrt{\frac{x}{4}} - 10$

g) $y = \frac{x-9}{3}$

h) $y = \left(\frac{x+5}{2}\right)^2$

i) $y = 5x - 9$

2: Rearrange to make x the subject:

a) $y = 6(x + 9)^2$

b) $y = \sqrt{\frac{x-3}{9}}$

c) $y = \frac{x^2 - 4}{7}$

d) $y = \sqrt{5x + 4}$

e) $y = 10\sqrt{x} - 6$

f) $y = \sqrt{\frac{x}{4}} - 6$

g) $y = 3x^2 - 2$

h) $y = \left(\frac{x-5}{4}\right)^2$

i) $y = 2x - 3$

3: Rearrange to make x the subject:

a) $y = 8(x + 4)^2$

b) $y = \frac{x - 3}{5}$

c) $y = \sqrt{\frac{x + 3}{4}}$

d) $y = \sqrt{8x - 6}$

e) $y = \left(\frac{x - 7}{2}\right)^2$

f) $y = \frac{x^2 - 5}{5}$

g) $y = 4x - 6$

h) $y = 6\sqrt{x} + 5$

i) $y = \sqrt{\frac{x}{6}} - 5$

Answers: Making x the Subject - Medium

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1: a) $x = 7y^2 + 4$ b) $x = \left(\frac{y+7}{5}\right)^2$ c) $x = \sqrt{9y-5}$ d) $x = \sqrt{\frac{y-5}{8}}$
e) $x = \frac{y^2-6}{7}$ f) $x = 4(y+10)^2$ g) $x = 3y+9$ h) $x = 2\sqrt{y}-5$
i) $x = \frac{y+9}{5}$

2: a) $x = \sqrt{\frac{y}{6}} - 9$ b) $x = 9y^2 + 3$ c) $x = \sqrt{7y+4}$ d) $x = \frac{y^2-4}{5}$ e) $x = \left(\frac{y+6}{10}\right)^2$
f) $x = 4(y+6)^2$ g) $x = \sqrt{\frac{y+2}{3}}$ h) $x = 4\sqrt{y} + 5$ i) $x = \frac{y+3}{2}$

3: a) $x = \sqrt{\frac{y}{8}} - 4$ b) $x = 5y + 3$ c) $x = 4y^2 - 3$ d) $x = \frac{y^2+6}{8}$ e) $x = 2\sqrt{y} + 7$
f) $x = \sqrt{5y+5}$ g) $x = \frac{y+6}{4}$ h) $x = \left(\frac{y-5}{6}\right)^2$ i) $x = 6(y+5)^2$