

Name - _____

Start time - __ : __

End time - __ : __

Solve the following.

1. Make w the subject of the following formulas.

a) $a = \sqrt{w}$

b) $x = 1 + \sqrt{w}$

c) $y = \sqrt{w - 2}$

d) $f - 3 = 2\sqrt{w}$

e) $j = \sqrt{3 + 4w}$

f) $a = \sqrt{1 - 2w}$

2. Consider the formula $t = 1 - 3(z + 1)^2$

a) Make $(z + 1)^2$ the subject of the formula.

b) By first square rooting both sides of your answer to part a), make z the subject of the formula.

3. Make z the subject of the following formulas.

a) $x = 1 + z^2$

b) $t + 2 = 3(z - 2)^2$

c) $2t = 3 - z^2$

d) $g = 4 - (2z + 3)^2$

e) $xy = 1 - 4z^2$

f) $r = 4 - 2(5 - 3z)^2$

4. Make a the subject of the following formulas.

a) $x(a + b) = a - 1$

b) $x - ab = c - ad$

c) $c = \frac{1 + a}{1 - 2a}$

d) $2e = \frac{2 + 3a}{a}$