Solve:

1) $-3log_3 x = log_3 64$

$$log_3 x^{-3} = log_3 64$$
$$x^{-3} = 64$$
$$x = \frac{1}{4}$$

2) $log_2 x * log_2 x - 2log_2 x - 15 = 0$

$$log_2 x^2 - 2log_2 x - 15 = 0$$
$$m = log_2 x$$
$$m^2 - 2m - 15 = 0$$
$$(m-5)(m+3) = 0$$
$$log_2 x = 5, log_2 x = -3$$
$$2^5 = 32 = x, 2^{-3} = {}^1/_8 = x$$

3) $log_8(640) + 2 = 4 + log_8(2x)$

$$log_8 640 - 2 = log_8(2x)$$
$$8^{log_8 640 - 2} = 2x$$
$$8^{log_8 64 + log_8 10 - 2} = 2x$$
$$64 * 10 * 8^{-2} = 2x$$
X=5

4) $2log_6(x+4) - log_6(4) = 2$

$2log_6(x+4) - log_6(4) = 2$
$log_6(x+4)^2 - log_6 4 = 2$
$log_6 \frac{(x+4)^2}{4} = 2$
$6^2 = \frac{(x+4)^2}{4}$
$144 = x^2 + 8x + 16$
$0 = x^2 + 8x - 128$
$(x+16)(x-8) = 0$
X=8