

Math 2

- glue stick
- SCISSORS
- toolkit

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ex 1) $\sqrt{x+3}=10$
 $\sqrt{x} = 7$
 $x = 49$

ex 2) $-3\sqrt{x} = -18$
 $\sqrt{x} = 6$
 $x = 36$

ex 3) $2\sqrt{x-8} = -1$
 $\sqrt{x-8} = \frac{-1}{2}$
 $(\sqrt{x-8})^2 = (\frac{-1}{2})^2$
 $x-8 = \frac{1}{4}$
 $x = 8\frac{1}{4}$

ex 4) $(\sqrt{x+4})^2 = (\sqrt{2x-1})^2$
 $x+4 = 2x-1$
 $4 = x-1$
 $x = 5$

ex 5) $\sqrt{3x+8} = \sqrt{x+4}$
 $3x+8 = x+4$
 $2x = -4$
 $x = -2$

ex 6) $x^2 = (\sqrt{4a-x})^2$
 $x^2 = 4a-x$
 $x^2 + x - 4a = 0$

x	-b	
x ²	-bx	II + III = 1
+7x	-4a	I · IV = -42

$(x-b)(x+7) = 0$
 $x-b=0$ $x+7=0$
 $x=b$ $x=-7$

* Square roots can not equal a negative # *

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ex 7) $(\sqrt{a-x})^2 = (x+4)^2$ $(x+4)^2 = (x+4)(x+4)$

$a-x = (x+4)^2$

$a-x$	$=$	$x^2 + 8x + 16$
$+x$		$+x$
a	$=$	$x^2 + 9x + 16$
$-a$		$-a$
0	$=$	$x^2 + 9x + 14$

	x	$+4$	
x	x^2	$4x$	
$+4$	$4x$	16	
	$x^2 + 8x + 16$		

	x	$+7$	
x	x^2	$7x$	$II + III = 9$
$+a$	ax	14	$I \cdot IV = 14$
	$(x+7)(x+a) = 0$		\downarrow
	$+7$	$+a$	

$x+7=0$ $x+a=0$

~~$x=-7$~~ $x=-a$

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