Age Problems

A man is four times as old as his son. In 3 years, the father will be three times as old as his son. How old is each now?

	Now	In 3yrs.
Man	$4x$	$3(x+3)$
Son	x	$x+3$

$$4x+3 = 3(x+3)$$
$$4x+3 = 3x+9$$
$$x = 6$$

Son 6 9
Dad 24 27

Abigail is 8 years older than Cynthia. Twenty years ago Abigail was three times as old as Cynthia. How old is each now?

	Now	20 yrs ago
A	$X+8$	$3(X-20)$
C	X	$X-20$

24, 32
Now

4, 12

$$X+8-20=3(X-20)$$
$$X-12=3X-60$$
$$48=2X$$
$$24=X$$

Seymour is twice as old as Cassandra. If 16 is added to Cassandra's age and 16 is subtracted from Seymour's age, their ages will then be equal. What are their present ages?

$S = 2x$

$C = x$

$x + 16 = 2x - 16$

$-x \quad -x$

$16 = x - 16$

$+16 \quad +16$

$32 = x$

Courtney is seven years older than Daniel, who is eight years older than Mackenzie. The sum of their ages is sixty-two. How old is Daniel?

$C = X + 15$

$D = X + 8$

$M = X$

$X + 15 + X + 8 + X = 62$

$3X + 23 = 62$

$-23 \quad -23$

$3X = 39$

$X = 13$

Daniel is 21