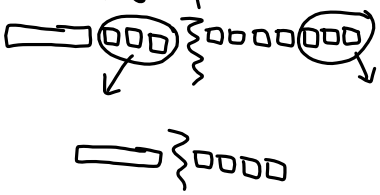
1.8 Solving Equations Using Algebra Tiles

▭ Variable tile ($n, x, y, \ldots$)

□ Unit tile ($+1$)

ex(1): $n + 3 = 7$

$1n + 3 = 7$



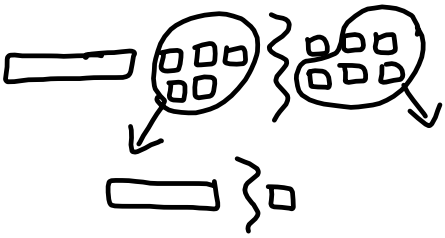
$\boxed{n = 4}$

Check: $4 + 3 \stackrel{?}{=} 7$

$7 = 7$ ✓ ☺

1. Write the equation
2. model the equation
3. Isolate the variable (get n all alone).
4. Keep equation balanced (do the same thing to both sides).
5. State your answer.
6. check answer.

ex: $x + 5 = 6$

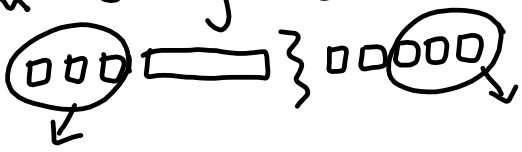


$\boxed{x = 1}$

Check: $1 + 5 \stackrel{?}{=} 6$

$6 = 6$ ✓ ☺

ex: $3 + y = 5$

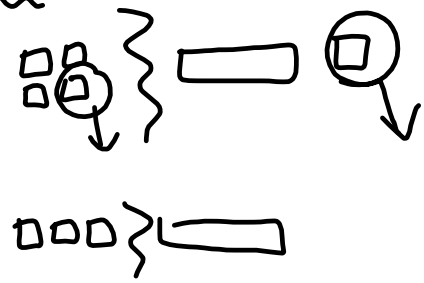


$\boxed{y = 2}$

Check: $3 + 2 \stackrel{?}{=} 5$

$5 = 5$ ✓ ☺

ex: $4 = n + 1$



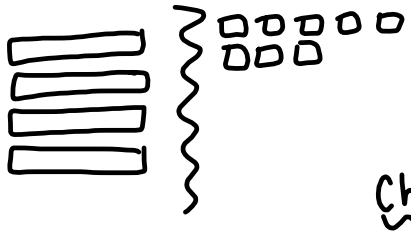
$3 = n$

$\boxed{n = 3}$

Check: $4 \stackrel{?}{=} 3 + 1$

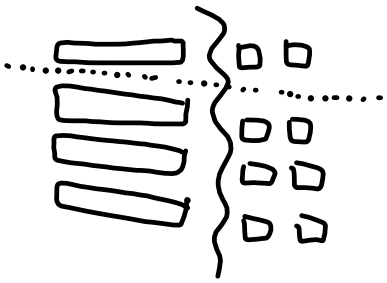
$4 = 4$ ✓ ☺

ex: $4n = 8$



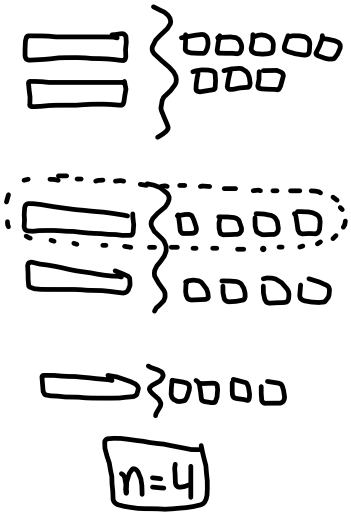
Check: $4(2) \stackrel{?}{=} 8$

$8 = 8$ ✓ ☺



$\boxed{n = 2}$

ex: $2n = 8$

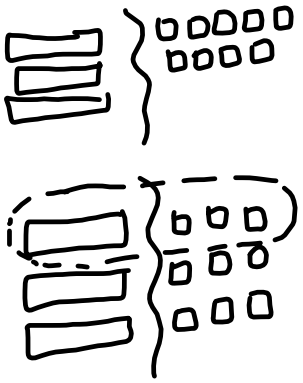


$\boxed{n=4}$

Check: $2(4)=8$

$8=8$ ✓ ☺

ex: $3n = 9$



$\boxed{n=3}$

Check: $3(3) \stackrel{?}{=} 9$

$9=9$ ✓ ☺