

Warm-up

Solve for a

1. $3a - 14 = 7$

$$3a - \cancel{14} = 7 + 14$$

$$\frac{3a}{3} = \frac{21}{3}$$

$$a = 7$$

3. $35 = 9a + 8$

$$9a + 8 = 35$$

$$9a + \cancel{8} = 35 - 8$$

$$\frac{9a}{9} = \frac{27}{9}$$

$$a = 3$$

April 10

2. $5a - 10 = 20$

$$5a - \cancel{10} = 20 + 10$$

$$\frac{5a}{5} = \frac{30}{5}$$

$$a = 6$$

4. $42 = 10a + 12$

$$10a + 12 = 42$$

$$10a + \cancel{12} = 42 - 12$$

$$\frac{10a}{10} = \frac{30}{10}$$

$$a = 3$$

Soooooooo... now let's add in the division

DON'T get overwhelmed by the look of it

Let's review our steps *(you wrote this down yesterday)*:

- Step 1: Use opposite operations to get rid of any addition/subtraction in the question
- Step 2: Use opposite operations to get rid of any multiplication/division in the question
- Step 3: Simplify your answer until the variable is alone on one side, and its value is on the other.

So, what would we do here

★ NOTE: use
opposite
operations!

$$\frac{n}{6} + 10 = 46$$

~~$$\frac{n}{6} + 10 = 46 - 10$$~~

~~$$\frac{n}{6} = 36$$~~

$$n = 216$$

Let's do these together...copy them down

$$\frac{n}{3} - 8 = 4$$

$$\frac{n}{3} \neq 8 + 8 = 4 + 8$$

$$\frac{n \times 3}{3} = 12 \times 3$$

$$n = 36$$

$$\frac{n}{3} = 12$$

$$\frac{30}{n} - 10 = 30$$

$$\frac{30}{n} \neq 10 + 10 = 5 + 10$$

$$\frac{30 \times n}{n} = 15 \times n$$

$$\frac{30}{15} = \frac{15n}{15}$$

$$2 = n$$

You try this one

$$\frac{12}{n} + 4 = 10$$

$$\frac{12}{n} + 4 = 10 - 4$$

$$\frac{12}{n} = 6$$

$$\frac{12}{6} = \frac{6n}{6}$$

$$2 = n$$

How are we feeling???



$$1) 2 = 3k - 1$$

$$5) \frac{n}{1} + 4 = 4$$

$$2) 25 = 4x - 3$$

$$6) \frac{r}{2} - 1 = 4$$

$$3) 2n + 2 = 4$$

$$4) 16 = 3a + 1$$

$$7) 1 = \frac{n}{2} - 2$$

1) $2 = 3k - 1$

$2 + 1 = 3k - 1 + 1$

$$\frac{3}{3} = \frac{3k}{3}$$

$1 = k$

2) $25 = 4k - 3$

$25 + 3 = 4k - 3 + 3$

$$\frac{28}{4} = \frac{4k}{4}$$

$7 = k$

3) $2n + 2 = 4$

$2n + 2 - 2 = 4 - 2$

$$\frac{2n}{2} = \frac{2}{2}$$

$n = 1$

4) $1b = 3a + 1$

$1b - 1 = 3a + 1 - 1$

$$\frac{1b}{3} = \frac{3a}{3}$$

$5 = a$

5) $\frac{n}{1} + 4 = 4$

1

$\frac{n}{1} + 4 - 4 = 4 - 4$

1

$$\frac{n}{1} = 0^{x1}$$

$n = 0$

6) $\frac{r}{2} - 1 = 4$

2

$\frac{r}{2} - 1 + 1 = 4 + 1$

2

$$\frac{r}{2} = 5^{x2}$$

$r = 10$

7) $1 = \frac{n}{2} - 2$

2

$1 + 2 = \frac{n}{2} - 2 + 2$

2

$$3 = \frac{n}{2}^{x2}$$

2

$6 = n$

$$\frac{35}{n} + 8 = 13$$

$$\frac{n}{7} - 12 = 9$$

$$12a - 16 = 8$$

$$9a + 11 = 65$$

