Solution Guide for Chapter 6

Here are the solutions for the "Doing the Math" exercises in *Kiss My Math*!

DTM from p.86-87

2. Evaluate $4 + 3g$ for each of these g values: $g =$ ❀, $g = 1, g = -1, g = \frac{1}{3}, g = 0.2$.

Remember, just substitute the new values in, wherever you see *g*. If we are just substituting a flower for g, then we stick in ❀ wherever we see g:

$4 + 3(❀) = \mathbf{4 + 3}❀$**.**

So for the g = 1, just stick in a "1" wherever you see *g* in the expression, and then simplify.

$4 + 3(1) = 4 + 3 =$ **7**.

Next, for g = –1, we get: $4 + 3(-1) = 4 - 3 =$ **1**.

If g = 1/3, then the expression has this value: $4 + 3(1/3) = 4 + 1 =$ **5**.

Finally, when g = 0.2, the expression equals: 4 + 3(0.2) = 4 + 0.6 = **4.6**.

Answer: **4 + 3❀, 7, 1, 5, and 4.6**

3.

Evaluate $2h + \frac{6}{h}$ for each of these h values: $h = 1$, $h = 2$, $h = -3$, $h =$ ☺.

Again, wherever we see *h* in the expression, is where we stick the numerical values for *h*.

For h = 1, we get: 2(1) + 6/1 = 2 + 6 = **8**.

If h = 2, then we get: 2(2) + 6/3 = 4 + 2 = **6**.

Where h = –3, then the expression equals: 2(–3) + 6/(–3) = –6 + –2 = **–8**.

Finally, if h = ☺, then the expression would be: **2(☺) + 6/☺.**

Answer:

8, 7, −8, and $2☺ + \frac{6}{☺}$

DTM from p.96

2. $7 - 4z$

Let's rewrite the subtraction as "adding a negative": $7 + (-4z)$

Now we can see that there are two terms, separated by addition, and we have one constant, 7, one variable, z, and since we rewrote the expression, it's easier to see that the z's coefficient is –4.

Answer: **Two terms total; the variable is *z*; the coefficient is –4; the constant is 7**.

3. $n - m$

Again, rewriting this subtraction as "adding a negative," we get: $n + (-m)$. Now it's easy to see that there are two terms, and that there are no constants, there are two variables (n and m) and their coefficients are 1 and –1.

Answer: **Two terms total; the variables are *n* and *m*; the coefficients are 1 and –1, and there are no constants.**

4. $0.2 + a - 5b + \frac{2}{3}c$

Rewriting the subtraction into "adding a negative" we get: $0.2 + a + (-5b) + \frac{2}{3}c$. We can count 4 terms total. We only see one constant, which is 0.2. After that, we have three variables, a, b, c, with coefficients of 1, –5, and $\frac{2}{3}$, respectively.

Answer: **Four terms total; the variables are *a, b,* and *c*; the coefficients are 1, –5, and $\frac{2}{3}$; the constant is 0.2**.

5. $\frac{3x}{5} - 9 - y$

First, we'll rewrite the subtraction as "adding negatives" and get: $\frac{3x}{5} + (-9) + (-y)$.

Things are clearer, but what about that first term? Remember that with fractions we can either put the variable on the numerator, or next to it, so $\frac{3x}{5} = \frac{3}{5}x$. It's easier to see the

coefficient this way, so let's rewrite the expression as: $\frac{3}{5}x + (-9) + (-y)$. Now we can see that there is one constant, –9, there are two variables, x and y, and their coefficients are $\frac{3}{5}$ and –1.

Answer: **There are three terms total; the constant is –9, the variables are *x* and *y*, and their coefficients are $\frac{3}{5}$ and –1.**