$$= \frac{x^6}{6} + C$$

And you can verify. Take the derivative of this using the power rule, you indeed get x to the fifth. Let's try another one. Let's try-- now we'll do it in blue.

$$\int 5x^{-2}\,dx = 5\int x^{-2}\,dx$$

$$= 5\left(\frac{x^{-}}{-2+1} + C\right)$$

And now we can just use, I guess we could call it this anti-power rule, so this is going to be equal to 5 times x to the negative 2 power plus 1 over the negative 2 power plus 1 plus some constant right over here.

$$= 5\left(\frac{x^{-1}}{-1} + C\right)$$

$$= 5\left(-x^{-1} + C\right)$$

And then if we want, we can distribute the 5.

$$= -5x^{-1} + $$

Now, we could write plus 5 times some constant, but this is just an arbitrary constant. So this is still just an arbitrary constant. So maybe we could [INAUDIBLE] this.

$$= 5\left(\frac{x^{-2+1}}{-2+1} + C_1\right)$$

$$= 5\left(\frac{x^{-1}}{-1} + C_1\right)$$

$$= 5\left(-x^{-1} + C_1\right)$$

If you want it to show that it's a different constant, you could say this is c1, c1, c1. You multiply 5 times c1, you get another constant.

$$= \boxed{-5x^{-1} + C}$$

$$\int 5x^{-2}\,dx = 5\int x^{-2}\,dx$$

And once again, all of these, try to evaluate the derivative, and you will see that you get this business, right over there.