$\qquad$ Date: $\qquad$
Thanksgiving Color Match Activity solving exponential equations


Directions: Answer the questions. Find your answer on the Thanks-Giving Turkey. Then color according to your answers._

1. An exponential equation is an equation in which the variable is in the $\qquad$ . (PINK)
2. In $3^{x+1}$, the exponent is $\qquad$ . (YELLOW)
3. In $125^{x+3}$, the base is $\qquad$ . (ORANGE)
4. By the definition of exponents, if $a^{x}=a^{y}$ then $\qquad$ . (RED)
5. The solution of $9^{2 x-5}=27$ is $\qquad$ . (LIGHT GREEN)
6. In $8^{3 a+2}$, the exponent is $\qquad$ (RED)
7. $\ln \frac{1}{2^{3 y-1}}$, the base is $\qquad$ (BROWN)
8. The solution of $4^{5-9 x}=\frac{1}{8^{x-2}}$ is $\qquad$ . (LIGHT GREEN)
9. The solution of $9^{2 x+3}=\left(\frac{1}{27}\right)^{3 x+1}$ is $\qquad$ . (LIGHT BLUE)
