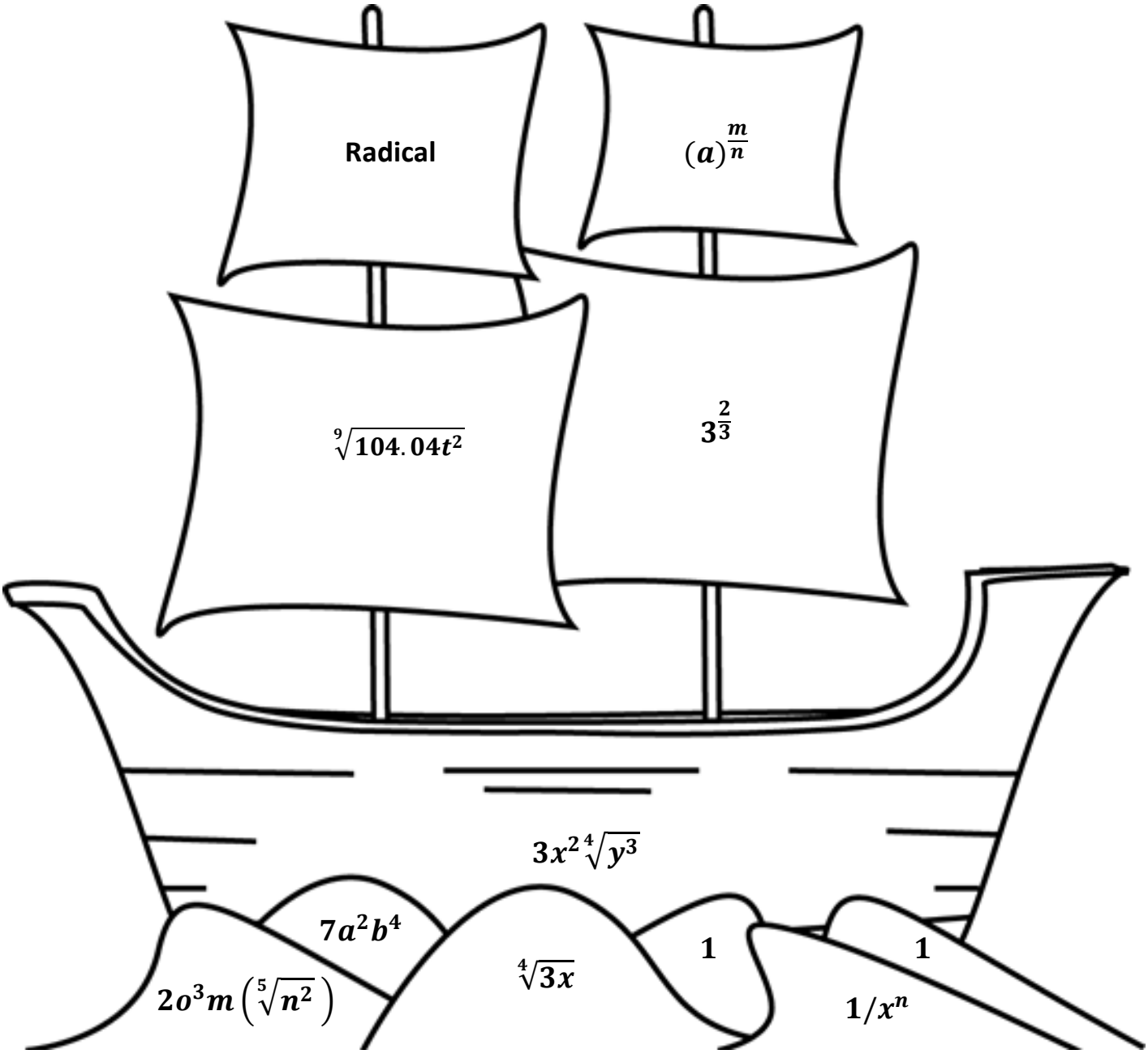
Name: _____ Period: _____ Date: _____

Thanksgiving Color Match Activity EXPRESSIONS WITH RADICAL EXPONENTS



Directions: Answer the questions. Find your answer on the May-Flower ship. Then color according to your answers.

1. An expression having the variable under the radical sign is known as _____ expression. **(YELLOW)**

2. Any radical expression of the form $\sqrt[n]{a^m}$ can be written using a fractional exponent in the form _____. **(ORANGE)**

3. The expression $\sqrt[3]{9}$ written as an expression with rational exponent is _____. **(PINK)**

4. The expression $(3x)^{\frac{1}{4}}$ written in radical form is _____. **(LIGHT BLUE)**

5. By the laws of exponents, $x^0 =$ _____. **(GREY)**

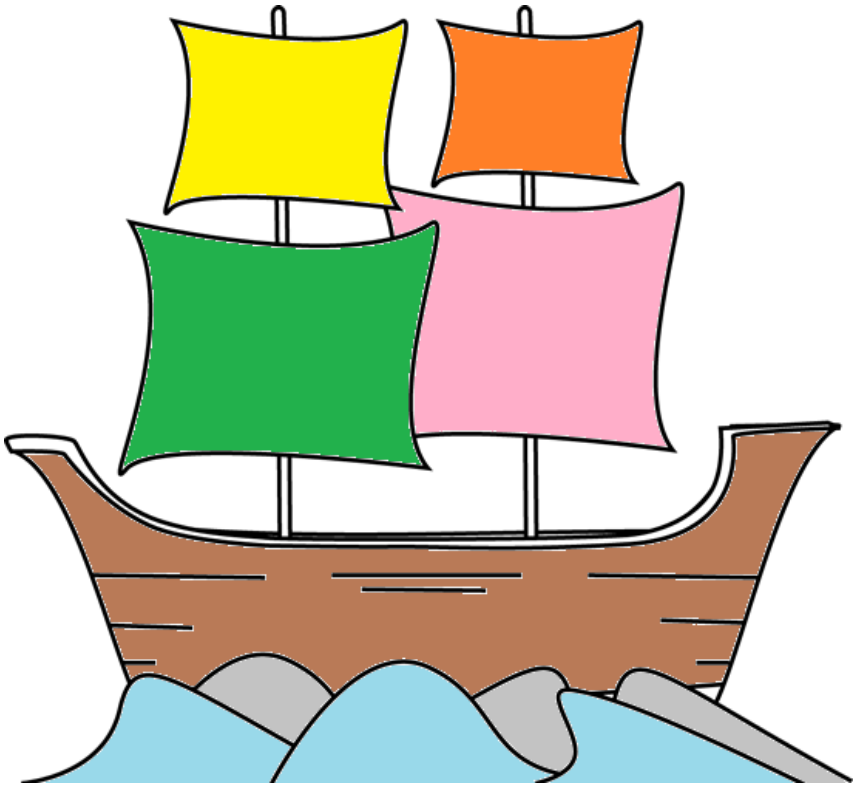
6. By the laws of exponents, $x^{-n} =$ _____ **(LIGHT BLUE)**

7. Simplifying the expression $\sqrt[4]{81x^8y^3}$ gives _____. **(BROWN)**

8. The expression $(10.2t)^{\frac{2}{9}}$ written in radical form is _____. **(GREEN)**

9. Simplifying the expression $\sqrt[3]{343a^6b^{12}}$ gives _____. **(GREY)**

10. Simplifying the expression $\sqrt[5]{32m^5n^2o^{15}}$ gives _____. **(LIGHT BLUE)**



Answers:

1. Radical
2. $(a)^{\frac{m}{n}}$
3. $3^{\frac{2}{3}}$
4. $\sqrt[4]{3x}$
5. 1
6. $1/x^n$
7. $3x^2\sqrt[4]{y^3}$
8. $\sqrt[9]{104.04t^2}$
9. $7a^2b^4$
10. $2o^3m\left(\sqrt[5]{n^2}\right)$