Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_
**Thanksgiving Color Match Activity** EXPRESSIONS WITH RADICAL EXPONENTS



$$2o^{3}m\left(\sqrt[5]{n^{2}} \right)$$

$$1$$

$$7a^{2}b^{4}$$

$$\sqrt[9]{104.04t^{2}}$$

$$3x^{2}\sqrt[4]{y^{3}}$$

$$1/x^{n}$$

$$1$$

$$3^{\frac{2}{3}}$$

$$(a)^{\frac{m}{n}}$$

**Radical**

$$\sqrt[4]{3x}$$

**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 $\left(3x\right)^{\frac{1}{4}}$ 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 $\sqrt[4]{81x^{8}y^{3}}$ gives \_\_\_\_\_\_\_\_\_\_. **(BROWN)**

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

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

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