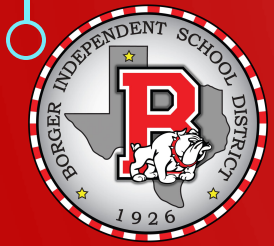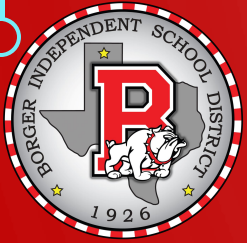# BOARD NOTES

28 JANUARY 2020

2A.7 (G) rewrite radical expressions that contain variables to equivalent forms;
2A.7 (H) solve equations involving rational exponents;

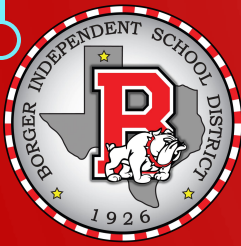# We will be able to rewrite radical expressions to equivalent forms.

WHAT WE NEED:

- TI-84

I WILL BE ABLE TO COMPLETE MY HOMEWORK GIVEN THE

- Equation

$$\sqrt[\text{Root}]{(\#)^{\text{Power}}} \implies \#^{\frac{\text{Power}}{\text{Root}}}$$

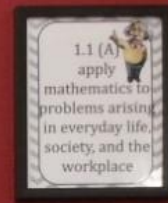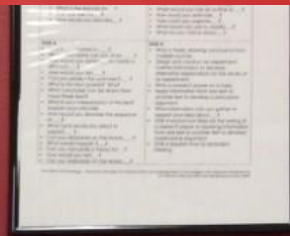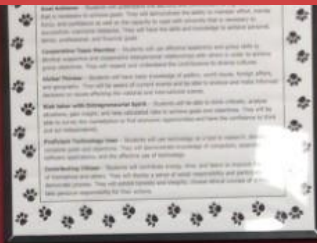$$\left(\sqrt[\text{Root}]{(\#)}\right)^{\text{Power}}$$

$$5\sqrt{24} \cdot 3\sqrt{8}$$
$$= 15\sqrt{192}$$
$$= 15\sqrt{16} \cdot \sqrt{12} = 15 \cdot 4\sqrt{12}$$
$$= 60\sqrt{12} = 60\sqrt{4} \cdot \sqrt{3}$$
$$= 120\sqrt{3}$$

$$\sqrt[5]{-32x^5 y^{10}} = -2xy^2$$

$$2\sqrt{3} + 3\sqrt{3} = 5\sqrt{3}$$

$$\sqrt{48} = \sqrt{6} \cdot \sqrt{8} = \sqrt{6} \cdot \sqrt{2} \cdot \sqrt{4} = 2\sqrt{12}$$
$$= 2\sqrt{4 \cdot 3}$$

$$\sqrt{48} = \sqrt{3} \cdot \sqrt{16}$$
$$= 4\sqrt{3}$$

6	8
24	2
12	4
3	16

$$2\sqrt{50} - \sqrt{245} + 3\sqrt{125}$$
$$= 2\sqrt{25 \cdot 2} - \sqrt{49 \cdot 5} + 3\sqrt{25 \cdot 5}$$
$$= 10\sqrt{2} - 7\sqrt{5} + 15\sqrt{5}$$
$$= 10\sqrt{2} + 8\sqrt{5}$$

$$= 2 \cdot 2\sqrt{3}$$
$$= 4\sqrt{3}$$

$$\sqrt{16}$$
$$= \sqrt{4 \cdot 4}$$
$$= 4$$

$$\sqrt{16} = 4$$
$$4^2 = 16$$

14 days until Valentine's Day ♡

$$\sqrt[5]{64} = \sqrt[5]{32} \cdot \sqrt[5]{2} = 2\sqrt[5]{2}$$

$$\#^5 = 64 \qquad = \sqrt[5]{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2}$$

$$\sqrt[5]{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2} = 2$$

$$\sqrt{18m^3} = 3m\sqrt{2m}$$

$$\sqrt{18} = \sqrt{9} \cdot \sqrt{2}$$

$$= 3\sqrt{2}$$

$$\sqrt{m^3} = \sqrt{m \cdot m \cdot m}$$

$$= m\sqrt{m}$$

$$\sqrt[4]{32x^6} = \sqrt[4]{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot x \cdot x \cdot x \cdot x \cdot x \cdot x}$$

$$= 2x\sqrt[4]{2x^2}$$

$$\sqrt[3]{-64a^6b^7} = -4a^2b^2\sqrt[3]{b}$$

$$\sqrt[3]{(-4)^3(a^3)(a^3)(b^3)(b^3)b}$$

$$-4a \cdot a$$