Do Now:

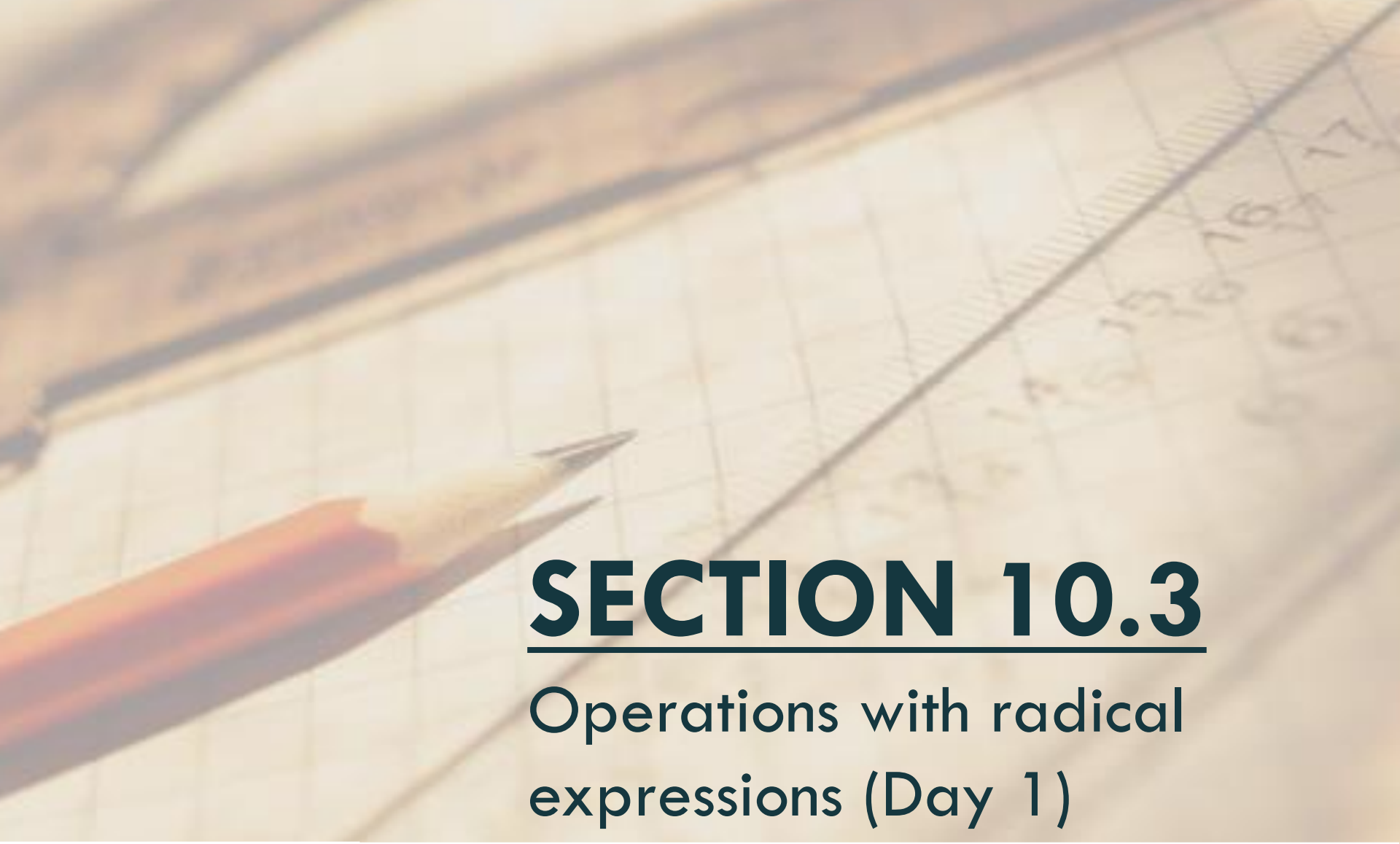
Simplify or combine like terms.

1. $2\Delta + 3\Delta - 8\partial = 5\Delta - 8\partial$

2. $-3☺(☺ + 4) = -3☺^2 - 12$

3. $(1 - \Omega)^2 = (1-\Omega)(1-\Omega) = 1 - \Omega - \Omega + \Omega^2 = 1 - 2\Omega + \Omega^2$

4. $2☺^2 - ☺ + 8☺^2 = 10☺^2 - ☺$



SECTION 10.3

Operations with radical expressions (Day 1)

SWBAT:

- Add, subtract, multiply and divide radicals.

Operations of Radicals

- ***Adding and Subtracting Radicals:***
  - To add or subtract radicals, combine like terms (radicals)!
  - Make sure all radicals are simplified
  - Add/subtract the numbers in front of the radicals (like terms only!)

the radical stays the same!

ex: $2\sqrt{5} + 3\sqrt{5}$

$5\sqrt{5}$

Adding & Subtracting Radicals:

$$3\sqrt{3} - 4\sqrt{2} + \sqrt{3} + 7\sqrt{2}$$

$3\sqrt{3} + \sqrt{3} \quad -4\sqrt{2} + 7\sqrt{2}$

$4\sqrt{3} + 3\sqrt{2}$

Adding & Subtracting Radicals:

$$\sqrt{8} - \sqrt{5} + 4\sqrt{2}$$

$\sqrt{8} = \sqrt{4}\sqrt{2} = 2\sqrt{2}$

$2\sqrt{2} + 4\sqrt{2} + -\sqrt{5}$

$6\sqrt{2} - \sqrt{5}$

Adding & Subtracting Radicals:

$$10\sqrt{27} - \sqrt{3} - 4\sqrt{75}$$

$10\sqrt{27} = 10\sqrt{9}\sqrt{3} = 10 \cdot 3\sqrt{3} = 30\sqrt{3}$

$-4\sqrt{75} = -4\sqrt{25}\sqrt{3} = -4 \cdot 5\sqrt{3} = -20\sqrt{3}$

$30\sqrt{3} - \sqrt{3} - 20\sqrt{3}$

$9\sqrt{3}$

HOMEWORK

- **Worksheet - all**