

Review of discriminant

$$b^2 - 4ac$$

> 0 , two solutions

$= 0$, 1 solution

< 0 , 0 solutions

Use TI-NSpire to play around with this.

Different tables make up quadratics as assigned.

DO NOW

When is a fraction undefined? _____

So, if $y = \frac{2}{x}$, what number **can't** x be equal to? 0. We call this a restriction.

• If $= \frac{3x-1}{7x}$, state the restriction? 0

• If $b = \frac{7n}{n-1}$, state the restriction? 1

• If $m = \frac{y-1}{y+3}$, state the restriction? -3

Solving Literal Equations:

To solve a literal equation, we are solving for one variable in terms of another.

This is useful when doing conversions using various formulas.

1) Solve for x: $ax + b = c$

$$x = \frac{c-b}{a}$$

Are there any restrictions?

$$a \neq 0$$

2) Solve for F: $S = 3F + 24$

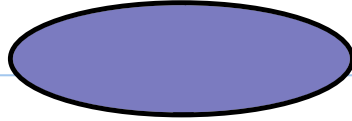
$$\frac{S-24}{3} = F$$

$$\frac{5}{3} - 8 = F$$

Are there any restrictions?

No restrictions

3) (i) What is the formula for the area of a triangle?



(ii) Solve the above formula for h .

$$\frac{2A}{b} = h$$

(iii) Are there any restrictions in either formula?

$$b \neq 0$$

$$b > 0$$

4) (i) What is the formula for the perimeter of a rectangle?

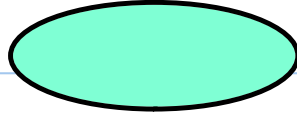
$$\frac{P - 2L}{2} = W$$

(ii) Solve the above formula for W.

$$\frac{P - 2L}{2} = W$$

(iii) Are there any restrictions in either formula?

5) (i) What is the formula for density?



$$V \cdot D = \frac{m}{V} \cdot V$$

$$DV = m$$

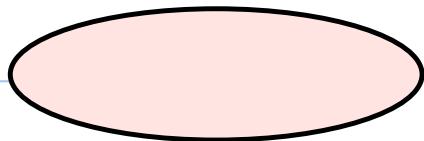
$$\frac{\bullet}{\div D} \quad \div D$$

(ii) Solve the above formula for V.

$$V = \frac{m}{D}$$

(iii) Are there any restrictions in either formula?

6) (i) What is the formula for the area of a trapezoid?



(ii) Solve the formula above for b_1

(iii) Are there any restrictions in either formula?

Homework:

- Worksheet
- Quiz on Discriminant Wednesday
- Test on discriminant, rational expressions that can be factored and graphing quadratics April 19 (no old material).