T-A2 Algebra 2 9/20 Week 3

Find the opposite reciprocal

$8 \longrightarrow -8 \longrightarrow \boxed{-\frac{1}{8}}$

$\frac{-4}{3} \longrightarrow \frac{4}{3} \longrightarrow \boxed{\frac{3}{4}}$

Determine whether each is rational. If so, why?

9 rational, counting, whole, integer

0 rational whole, integer

0.2222... rational repeating

0.453453 Rational terminal

-7 Rational integer

$\sqrt{48}$ irrational

$\sqrt{36}$ rational, perfect square

0.767676... Rational, repeating

0.123 Rational, terminal

π irrational

$\frac{3}{5}$ Rational fraction

$8a^2 - (2b^3 + 6a)$

$\boxed{a = 3}$ $\boxed{b = 4}$

$8(3)^2 - (2(4)^3 + 6(3))$

$8(3)^2 - (2(64) + 6(3))$

$8(3)^2 - (128 + 18)$

$8(3)^2 - (146)$

$8(9) - 146$

$8(9) - 146$

$72 - 146$

$\boxed{-74}$

$2(m - n^2) - 6(n^2 + 3m)$ "simplify"

$2m \quad -2n^2 \quad -6n^2 \quad -18m$

$2m - 18m$

$$-16m - 8n^2$$

$$\frac{F}{RT} = \frac{ART}{RT}$$

$$\frac{F}{RT} = \frac{A\cancel{RT}}{\cancel{RT}}$$

$$A = \frac{F}{RT}$$

$$\frac{PV}{nT} = \frac{nRT}{nT}$$

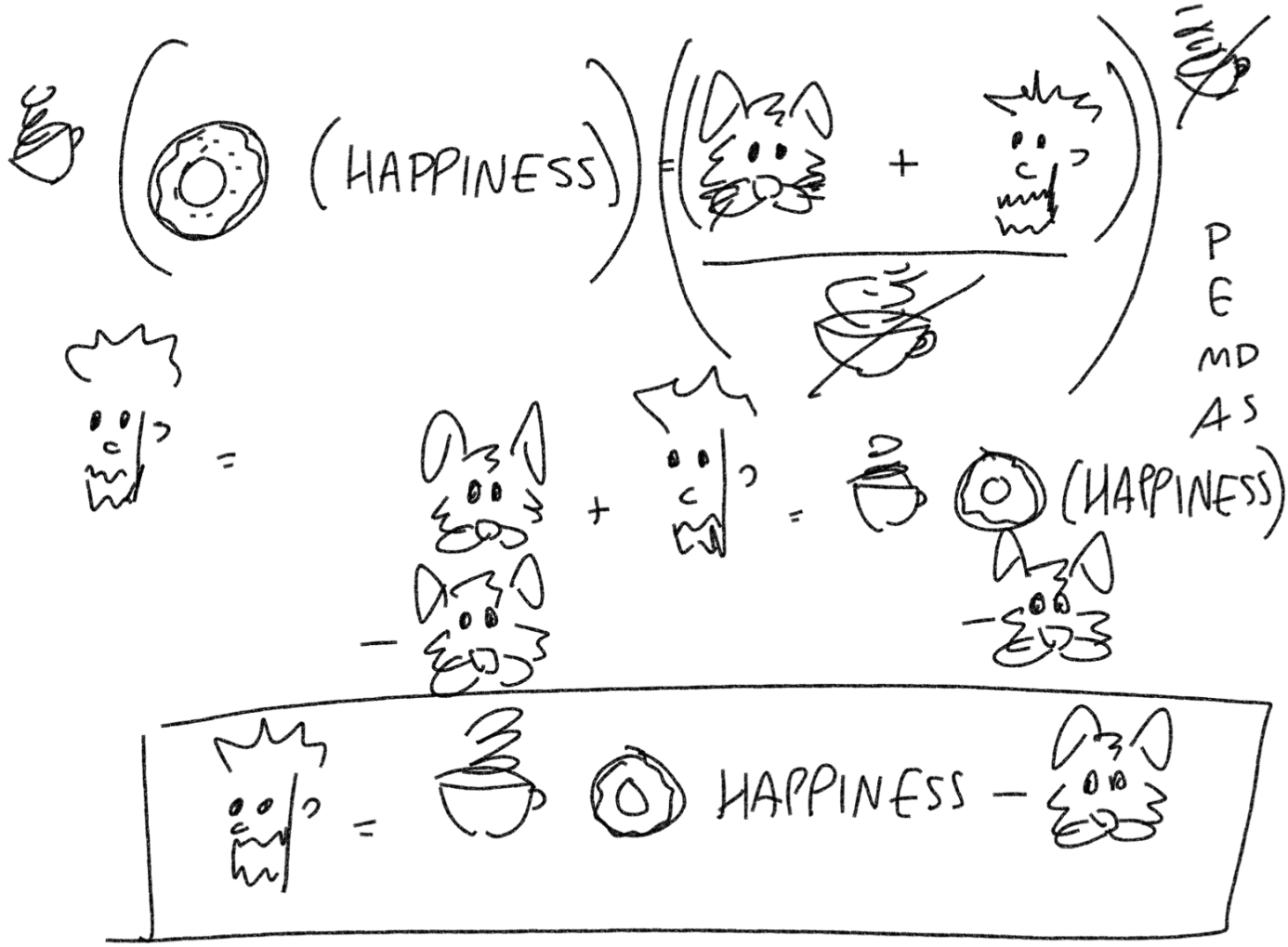
$$R = \frac{PV}{nT}$$

$$\frac{A}{\pi} = \frac{\pi r^2}{\pi}$$

$$\sqrt{r^2} = \sqrt{\frac{A}{\pi}}$$

$$r = \pm\sqrt{\frac{A}{\pi}}$$

P
E
MD
AS



$3m - n = 2m + n$ $\quad m =$

$-2m \qquad -2m$

$m - n = n$

$+n \quad +n$

$\boxed{m = 2n}$

$2(u + 3v) = w - 5u \quad u =$

$2u + 6v = w - 5u$

$+5u \qquad +5u$

$7u + 6v = w$

$-6v \quad -6v$

$\frac{7u}{7} = \frac{w - 6v}{7}$

$\boxed{u = \frac{w - 6v}{7}}$

$ax + b = cx + d \qquad x =$

$-cx \qquad -cx$

$ax - cx + b = d$

$-b \qquad -b$

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

$$\left\{ \frac{ax - cx}{a-c} = \frac{d-b}{a-c} \right\}$$

$$\frac{x(a-c)}{a-c} = \frac{d-b}{a-c}$$

$a - c$

$12 \quad 12$

$$\frac{1}{1}\left(\frac{2}{3}f + \frac{5}{12}g\right) = \left(3 - fg\right)^{12} \qquad f =$$

$$\frac{24}{3}f + \frac{60}{12}g = 36 - 12fg$$

$$8f + 5g = 36 - 12fg$$

$+12fg \quad -5g \qquad +12fg \quad -5g$

$$8f + 12fg = 36 - 5g$$

$$\frac{f(8+12g)}{8+12g} = \frac{36-5g}{8+12g}$$

$$f = \frac{36-5g}{8+12g}$$

$$\frac{x+a}{b} \times \frac{4}{5} \qquad x =$$

$$5(x+a) = 4b$$

$$5x + 5a = 4b$$