Alg. 1 - BE TUESDAY 3-3-09

SIMPLIFY

1. $(2x-4)-(2x+4)$

2. $(2x+6)(3x-2)$

FACTOR

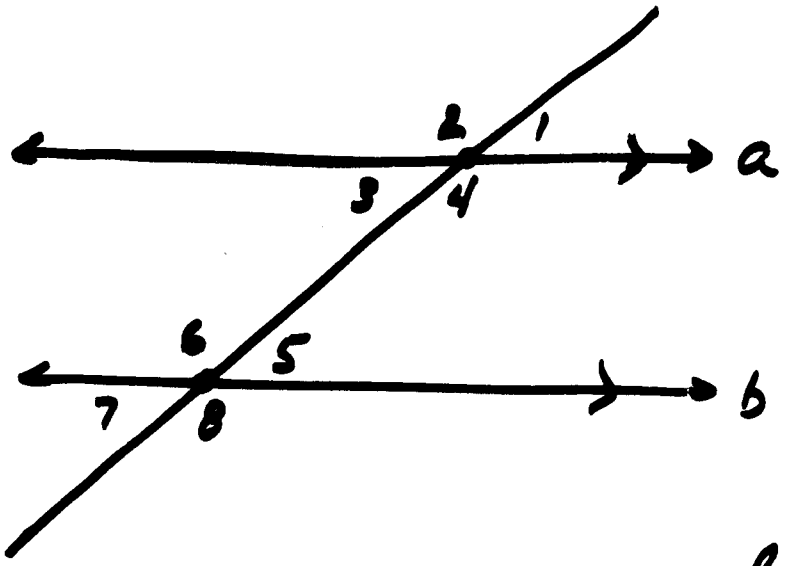
3. $49x^2-1$

4. $3x^2+11x-4$

5. $4x^2+2x+6x+3$

6. $x^2+4+\frac{1}{4}$

- Homework review
- Q3 Exam 2 Thursday



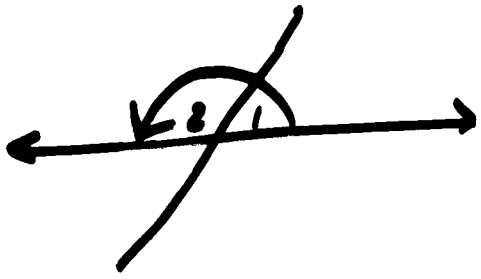
line a // line b

$m\angle 1 = m\angle 3$ the measure of Angle 1 = the measure of Angle 3.

$m\angle 1 = m\angle 5$

$\therefore m\angle 1 = m\angle 3 = m\angle 5 = m\angle 7$

$m\angle 2 = m\angle 4 = m\angle 6 = m\angle 8$

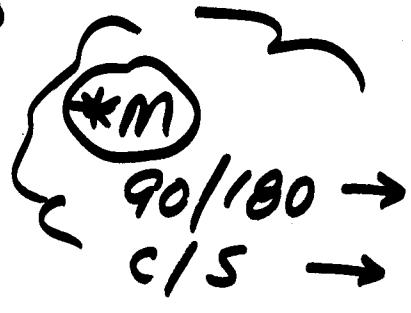


$m\angle 1 + m\angle 2 = 180°$

$\angle 1$ is Supplementary to $\angle 2$

Supplemental $\angle$'s ⇒ ADD TO 180°

Complemental $\angle$'s ⇒ ADD TO 90°

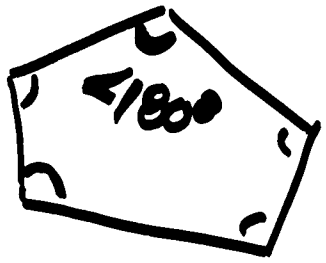


POLYGON

MANY SIDES

Ex 

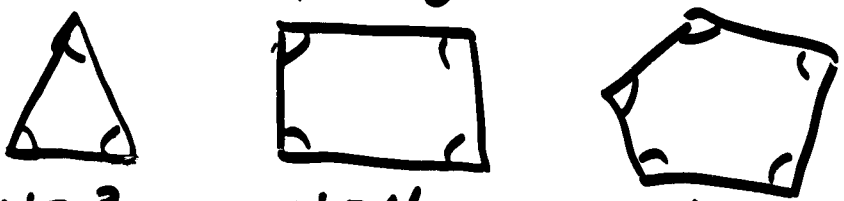
CONVEX POLYGON A POLYGON IN WHICH EACH INTERIOR (inside) ANGLE IS LESS THAN 180°

Ex 

NOT CONVEX

Ex 

CONVEX POLYGONS, N SIDES

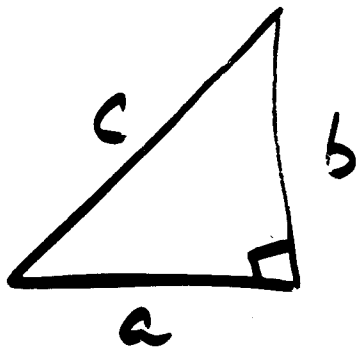


N=3 N=4 N=5 • • •

S=180° S=360° S=540° ⇒ $\boxed{S=180(N-2)}$

+180° +180°

Pythagorean Theorem



$$c^2 = a^2 + b^2$$

$$c = \sqrt{a^2 + b^2}$$

$$a^2 = c^2 - b^2$$

$$b^2 = c^2 - a^2$$

$$a = \sqrt{c^2 - b^2}$$

$$b = \sqrt{c^2 - a^2}$$

$y = f(x) = 2x - 3$ $\quad y = g(x) = x^2 + 1$

(a) $f(-3) = ?$ (b) $g(4a) = ?$

(a) $f(x) = 2x - 3$

$f(-3) = 2(-3) - 3 = -9$

$\boxed{f(-3) = -9}$

(b) $g(x) = x^2 + 1$

$g(4a) = (4a)^2 + 1$

$\boxed{g(4a) = 16a^2 + 1}$

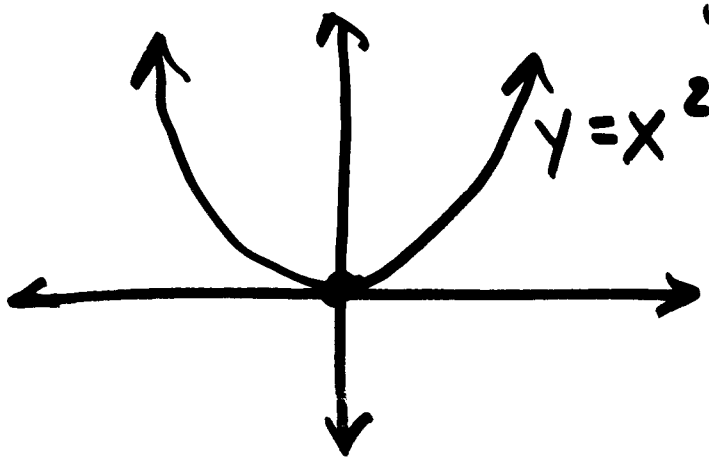
Find the range of $y = f(x) = x - 3$ if the domain is $\{-1, 0, 1\}$

X	$Y = X - 3$
-1	$(-1) - 3 = -4$
0	$(0) - 3 = -3$
1	$(1) - 3 = -2$

domain $= x = \{-1, 0, 1\}$

range $= y = \{-4, -3, -2\}$

Find the domain and range:



$d = \{\text{All reals}\}$

$r = \{y \mid y \geq 0\}$

MEAN ⇒ Average ⇒ $\frac{\text{ADD ALL}}{\text{DIVIDE BY HOW MANY}}$

MEDIAN ⇒ MIDDLE ⇒ PUT IN ORDER

x x x **m** x x x ODD NUMBER

↑ ODD

x x x m **:** m x x x EVEN NUMBER

↑ MIDDLE OF MIDDLE

MODE ⇒ MOST OFTEN, MAY BE NONE OR MORE THAN ONE MODE

(Ex) 3, 5, 2, 1, 4, 5

MEAN is $\frac{20}{6} = \frac{10}{3} = (3\frac{1}{3}) =$ MEAN

MEDIAN is 1, 2, (3, 4,) 5, 5

$(3\frac{1}{2}) =$ MEDIAN

MODE is (5)

Homework: Sample Test Pg 88-114 1-50 Green 51-100 Blue / SHOW WORK!