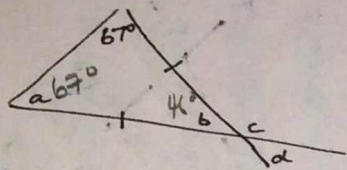


FOM 11 – Flashback #2

1. Determine the measure for each of the indicated angles and provide a reason for each.

$$\begin{array}{r} 167 \\ +67 \\ \hline 134 \end{array}$$

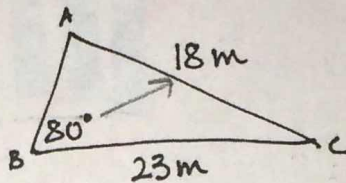
$$\begin{array}{r} 180 \\ -134 \\ \hline 46^\circ \end{array}$$



- $\angle a = 67^\circ$ isosceles Δ ($\alpha = \text{angles}$)
- $\angle b = 46^\circ$ $\Delta = 180^\circ$
- $\angle c = 134^\circ$ supplementary to $\angle b$
- $\angle d = 46^\circ$ vertically opposite $\angle b$
or supplementary to $\angle c$

2. Solve the following triangle.

find all measurements



Find $\angle A$

$$\frac{\sin 80}{18} = \frac{\sin A}{23}$$

$$A = \sin^{-1}\left(\frac{\sin 80}{18} \cdot 23\right)$$

Find $\angle C$

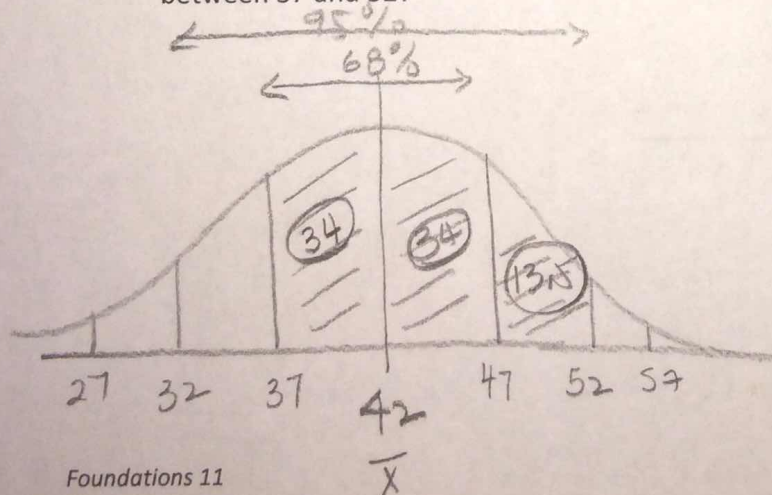
$$180 - 80 -$$

Find side c

3. Which standard deviation is more consistent? $\sigma_1 = 8.6$ or $\sigma_2 = 14.3$? Explain how you know.

The smaller standard deviation is more consistent.
(68% of data is within ± 8.6 points of the mean)

4. Draw a normal curve and label given that $\bar{x} = 42$ and $\sigma = 5$. What percent of the data is between 37 and 52?



$$34 + 34 + 13.5 = 81.5\%$$

of data between 37 and 52.

5. Graph the system

$$\begin{aligned} x+y &< 12 \\ 2x-1 &> y \\ 2y &> -8 \end{aligned}$$

Line 1

$$x+y < 12$$

$$y < -x + 12$$

↑ ↑ neg. slope
dashed $m=1$

test (0,0)

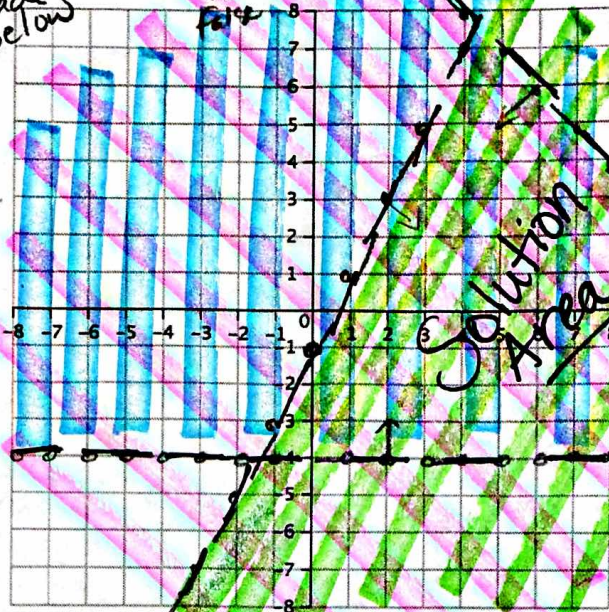
$$0+0 < 12 \checkmark$$

Shade below line

line 2 $2x-1 > y$ → dashed line

slope $m=2$
y-int

test (0,0) \times $0-1 > 0$
 $-1 > 0$
false
Shade below



line 3 dashed

$$2y > -8$$

$$y > -4$$

horizontal line

test (0,0)

$$0 > -8 \checkmark$$

Shade above.

Determine two different solutions from the graph. Verify algebraically.

Any points in solution area (many possibilities)

(3,2) $3+2 < 12 \checkmark$
 $2(3)-1 > 2 \checkmark$
 $2(2) > -8 \checkmark$

(5,-1) $5+(-1) < 12 \checkmark$
 $2(5)-1 > -1 \checkmark$
 $2(-1) > -8 \checkmark$

6. Just by looking, tell me what you know about the graph of the following quadratic functions.

$$y = 4x^2 + 3x - 5$$

opens up (positive)
skinny parabola ($a=4$)

y-int = -5
(0, -5)

$$y = -3(x-4)(x+1)$$

opens down
skinny parabola ($a=3$)

x-intercepts

$$\begin{aligned} (x-4) &= 0 & x+1 &= 0 \\ x &= 4 & x &= -1 \end{aligned}$$

(4,0) (-1,0)

thinking: y-intercept (a, r, s)

(0, 12)

$$y = -(x+6)^2 + 5$$

opens down
basic parabola $a=1$

vertex
(-6, 5)

thinking: y-int = -31

(0, -31)

thinking: must have 2 roots

thinking:



must have 2 roots

