

Name: _____

Date: _____

March 6

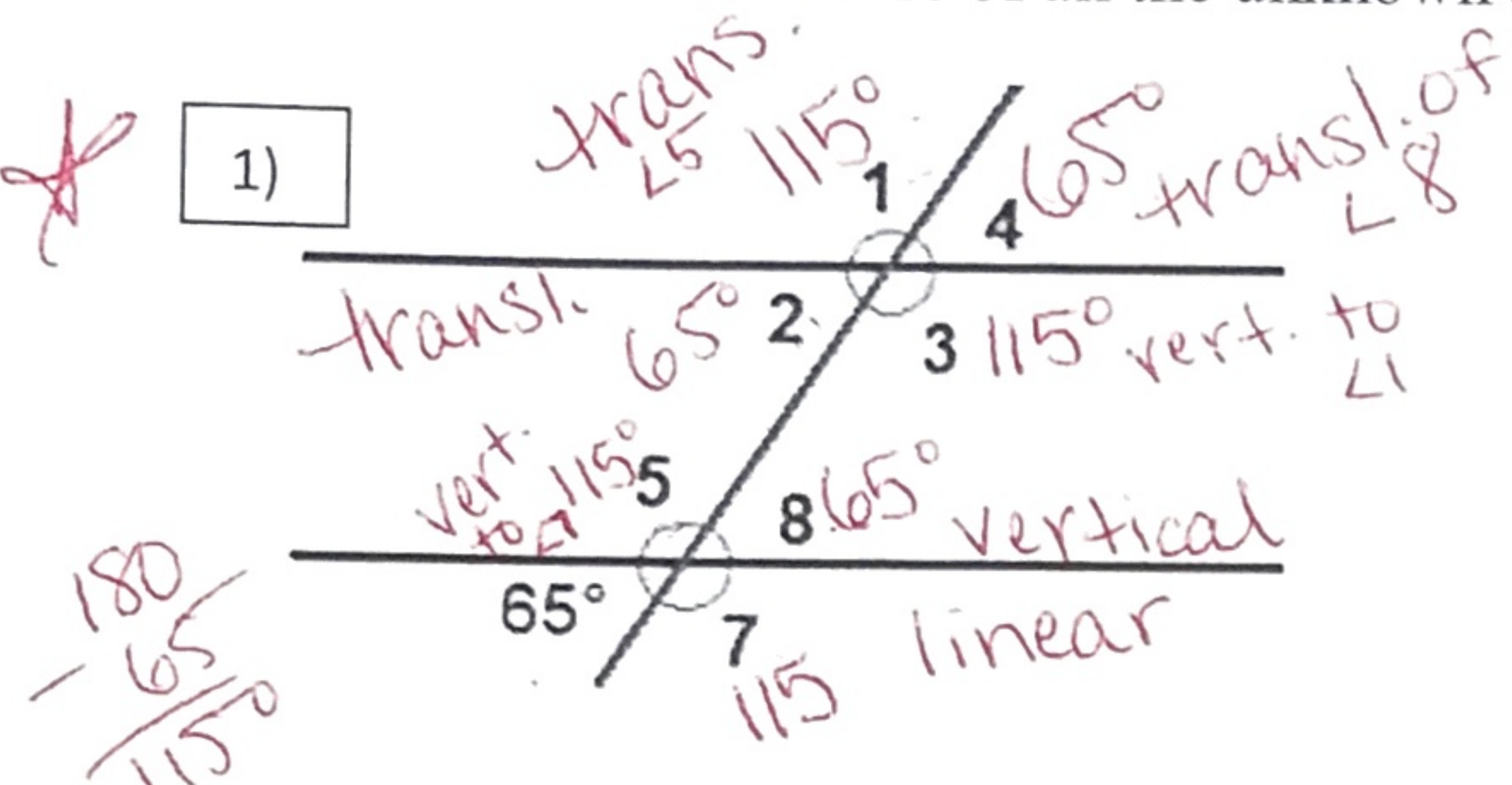
Hour: _____

6th

Unit 6B Day 19: Angles Review

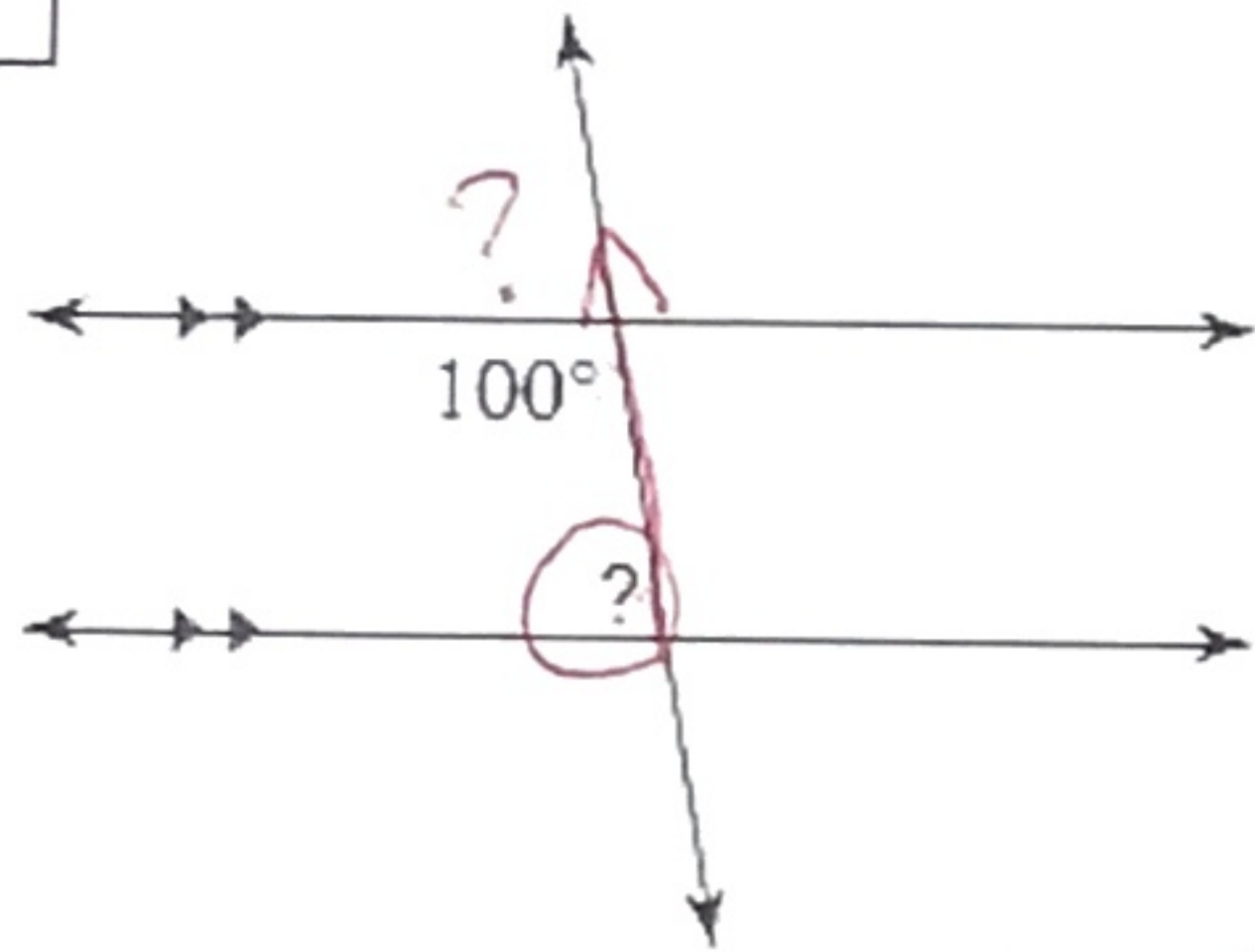
Focus Question: How do sequences of isometries help me find unknown angle measures?

Part A: Give the measure of all the unknown angles



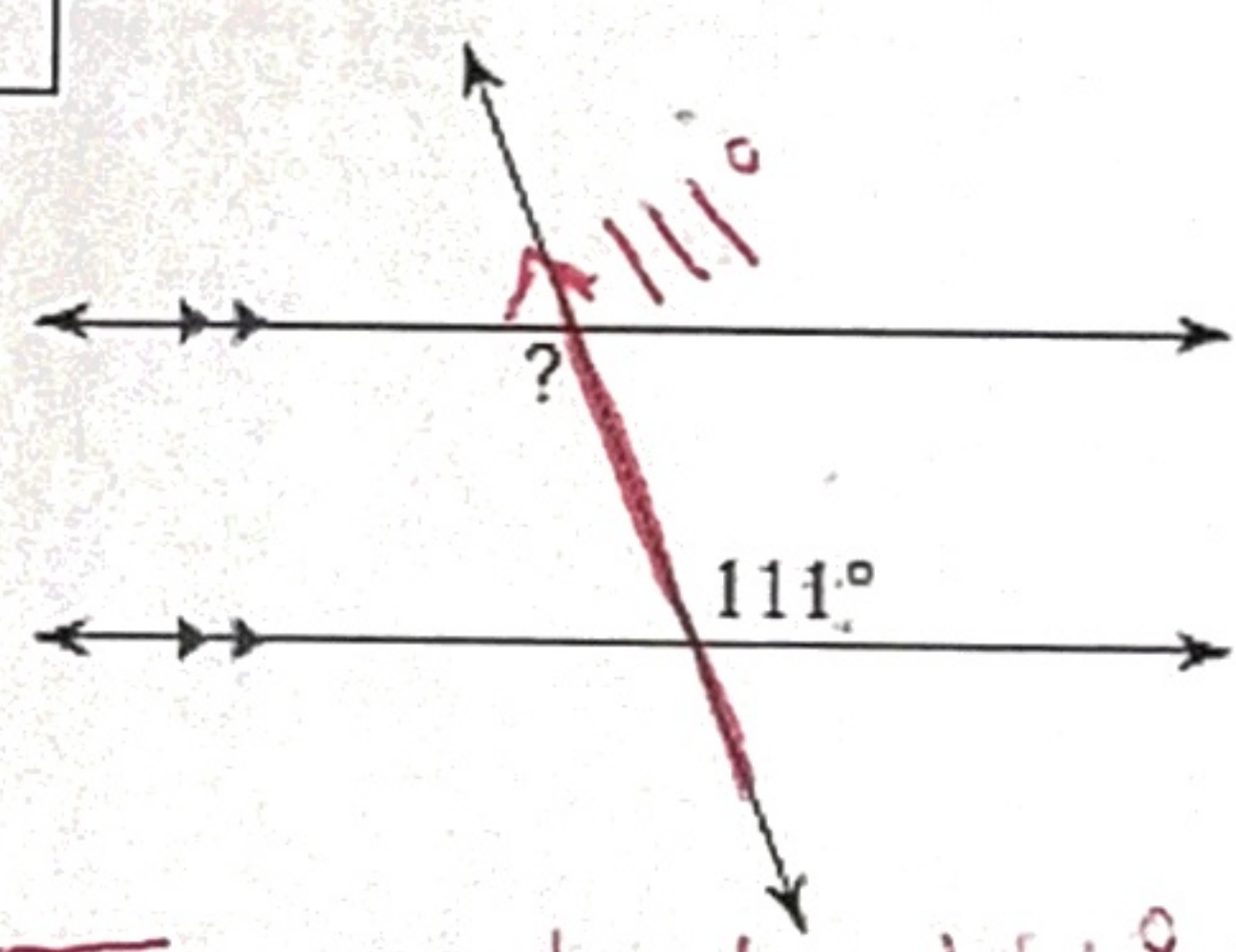
Part B: Give the unknown angle measure. Explain how you found your answer.

2)



Translate the ? up
now they are linear
 $180 - 100 = 80^\circ$

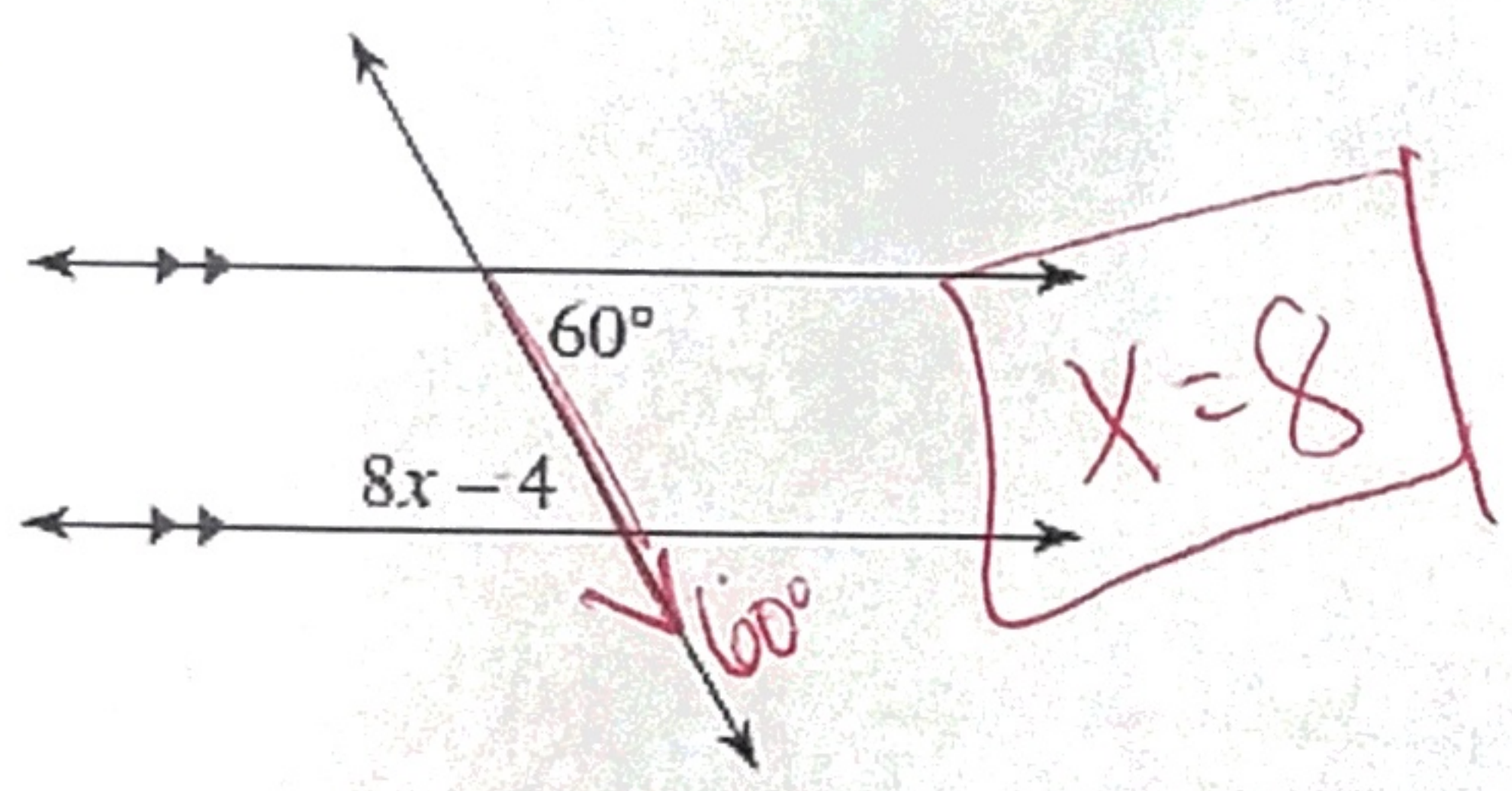
3)



Translate 111° up
now they are vertical
 $? = 111^\circ$

Part C: Find the value of the variable. Explain how you found your answer.

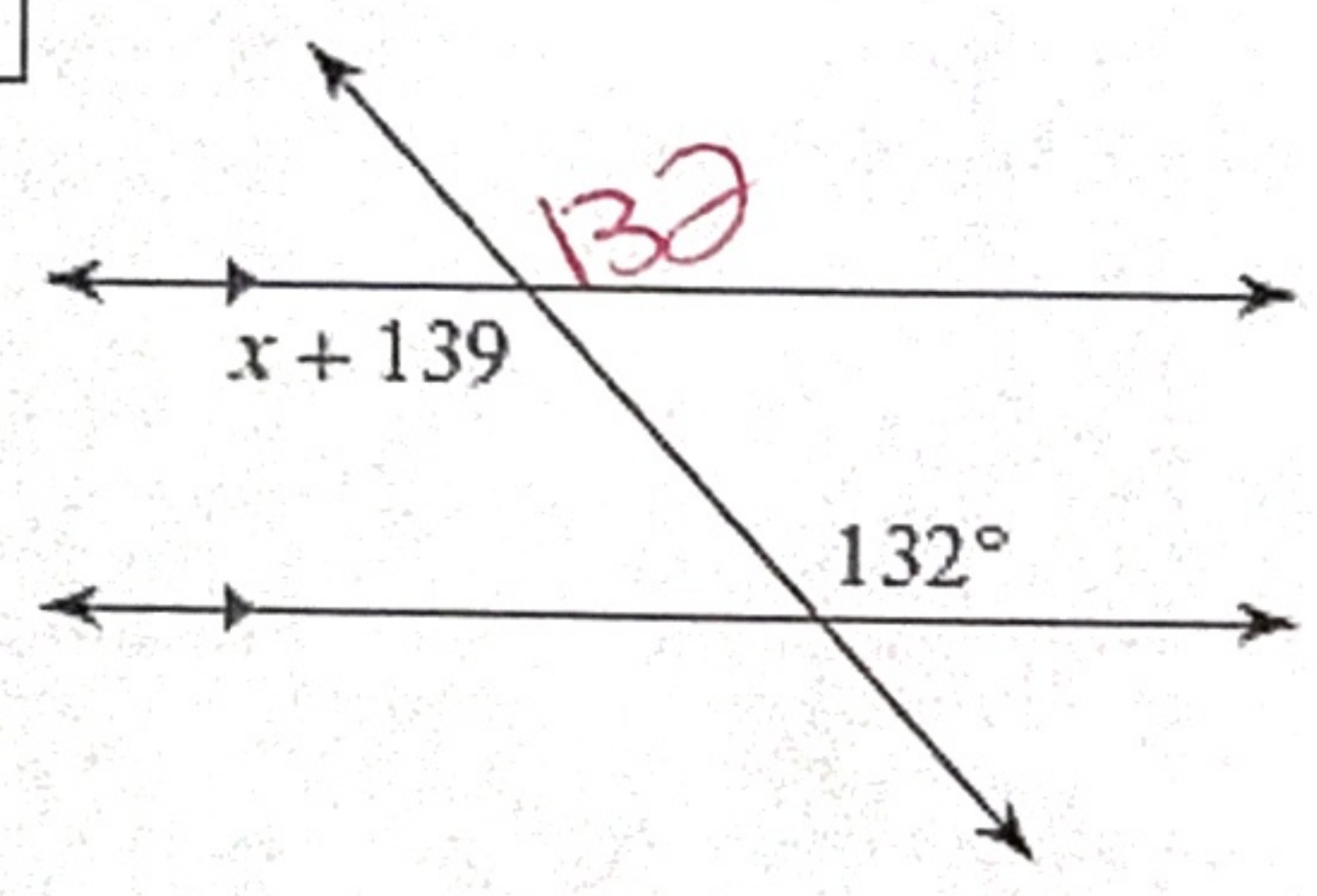
4)



Translate 60° down
now they are vertical

$$\begin{array}{r} 8x - 4 = 60 \\ +4 \quad +4 \\ \hline 8x = 64 \\ \hline 8 \quad 8 \\ \hline x = 8 \end{array}$$

5)



Translate 132° up
now they are vert.

$$\begin{array}{r} 132 = x + 139 \\ -139 \quad -139 \\ \hline -7 = x \end{array}$$

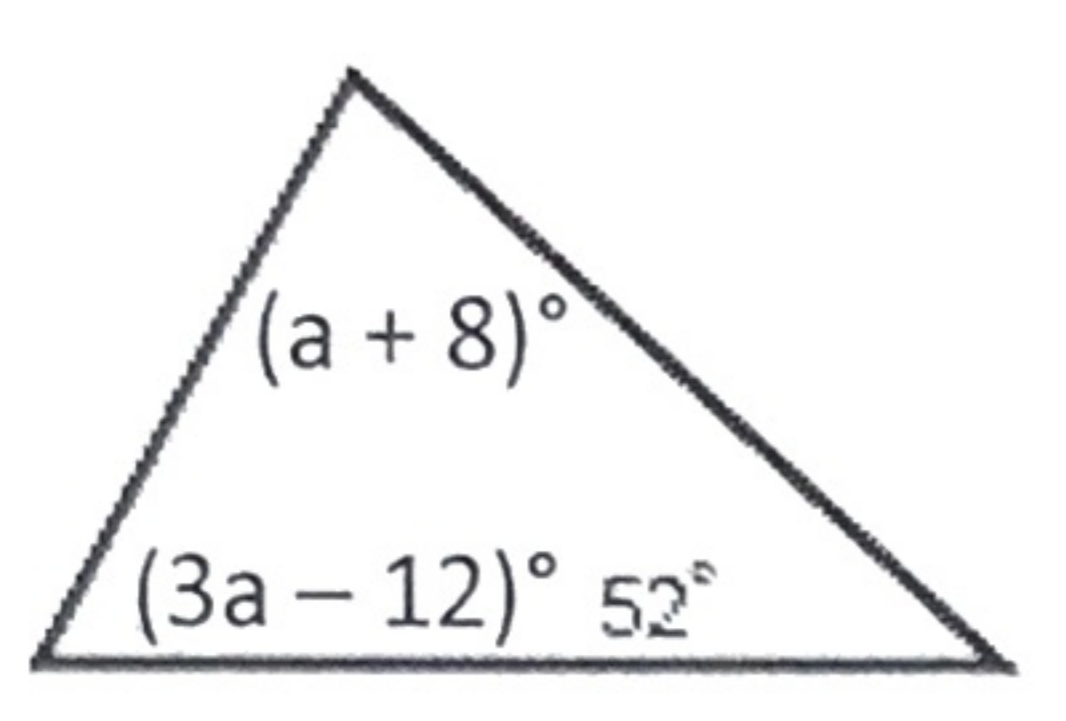
★ Are the angles inside or is 1 outside?

• inside _____ + _____ + _____ = 180

• outside ext = in + in

6)

all inside



a = _____

$$(a+8) + (3a-12) + 52 = 180$$

$$4a + 48 = 180$$

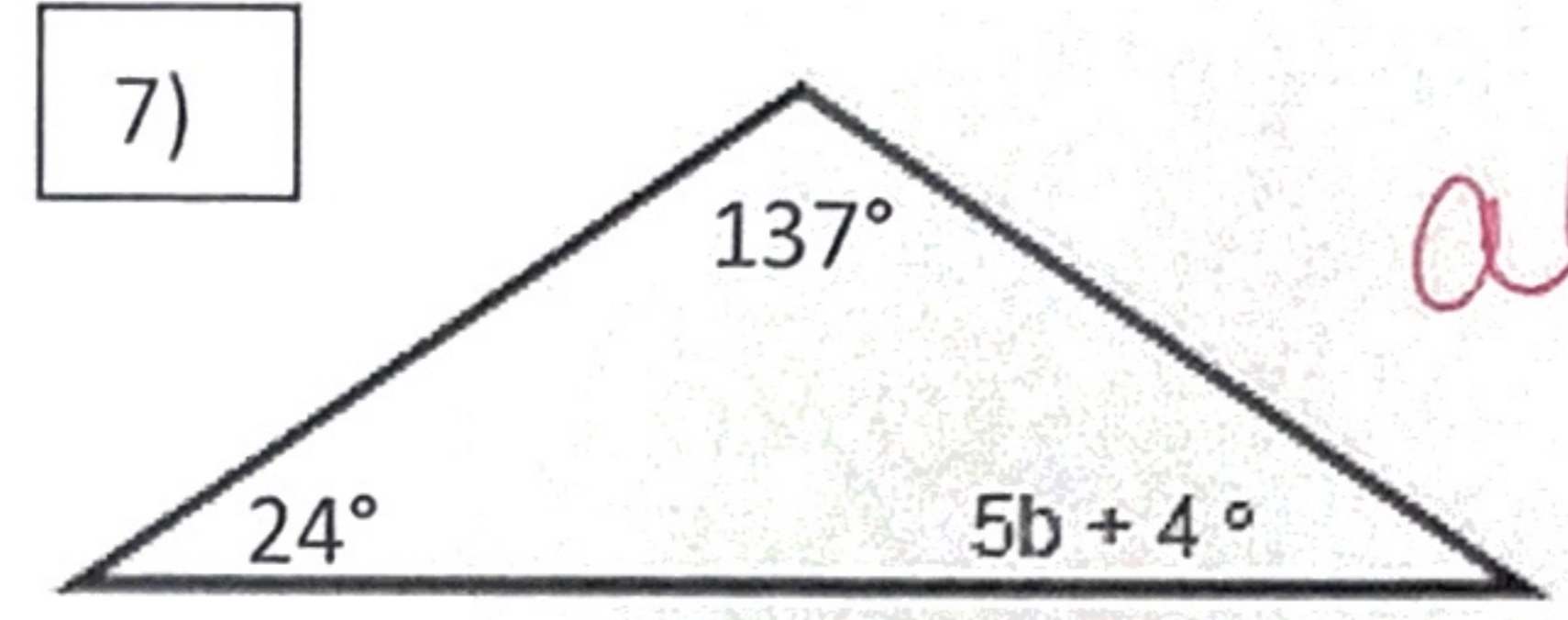
$$-48 \quad -48$$

a = 33

$$\frac{4a}{4} = \frac{132}{4}$$

7)

all inside



b = _____

$$5b+4 + 137 + 24 = 180$$

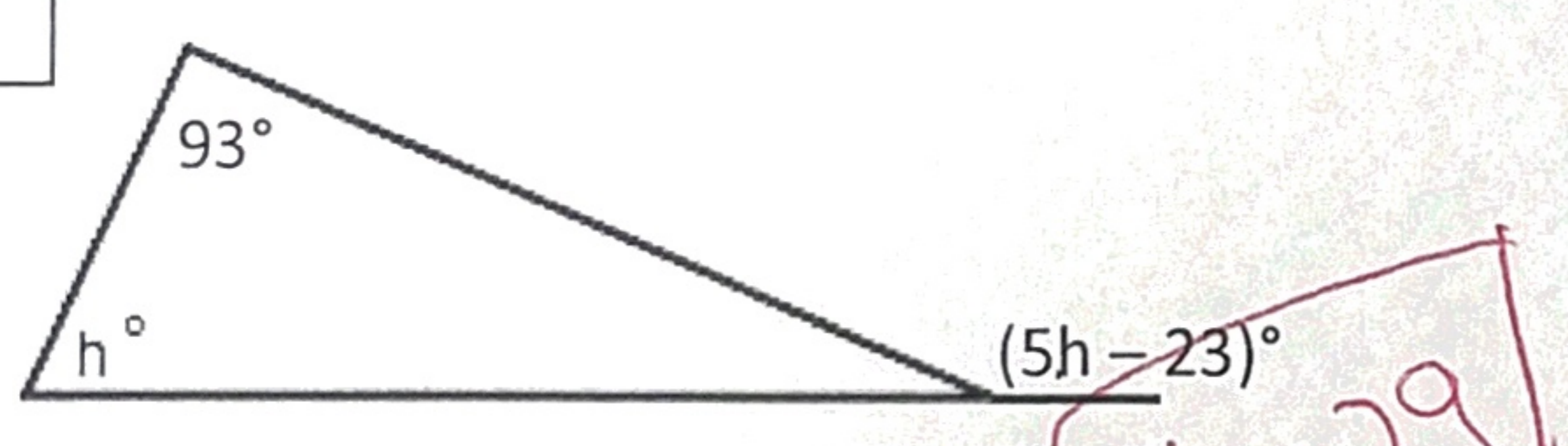
$$5b + 165 = 180$$

$$-165 \quad -165$$

b = 3

$$\frac{5b}{5} = \frac{15}{5}$$

8)



h = _____

h = 29

outside ext = in + in

$$5h-23 = 93+h$$

$$-h \quad -h$$

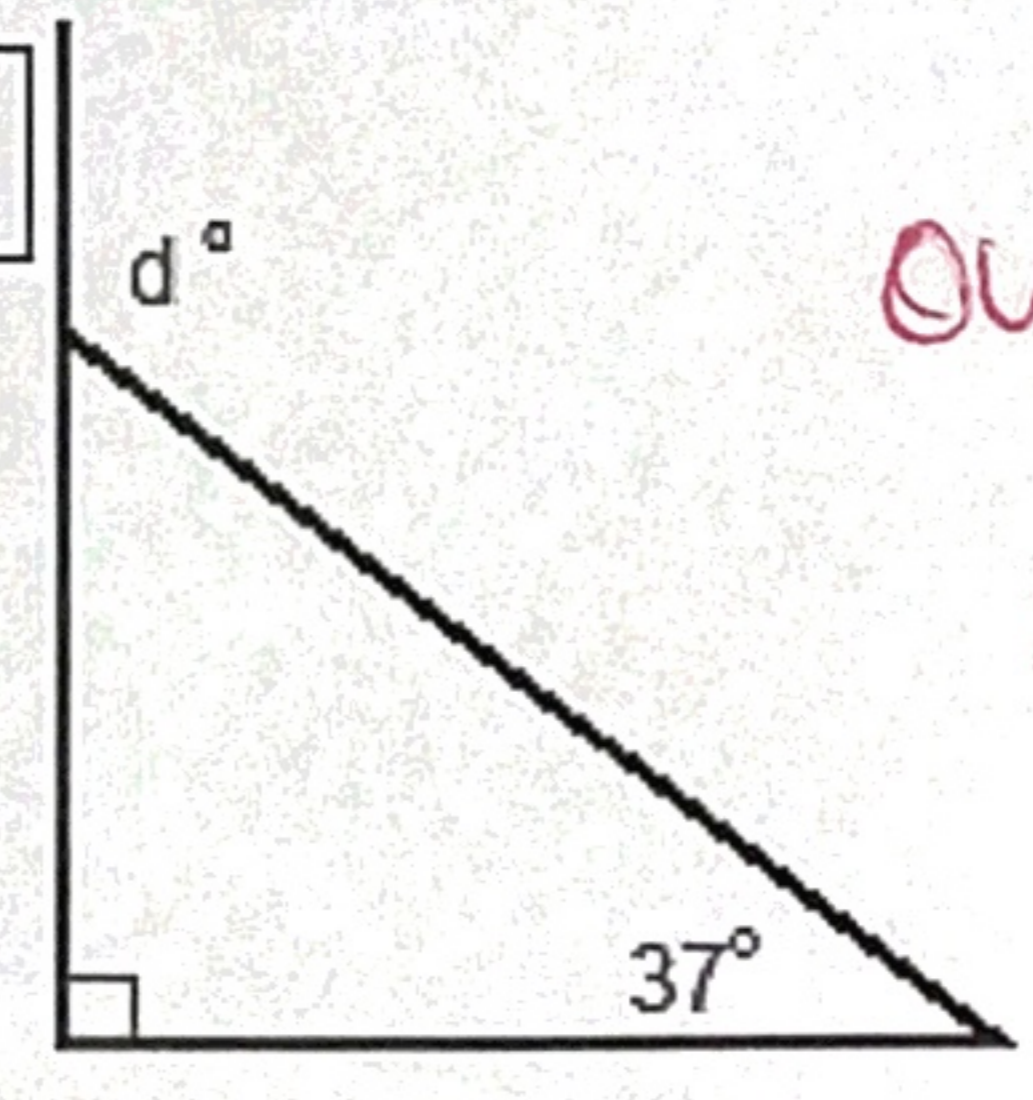
$$4h-23=93$$

$$+23 \quad +23$$

$$\frac{4h}{4} = \frac{116}{4}$$

9)

outside



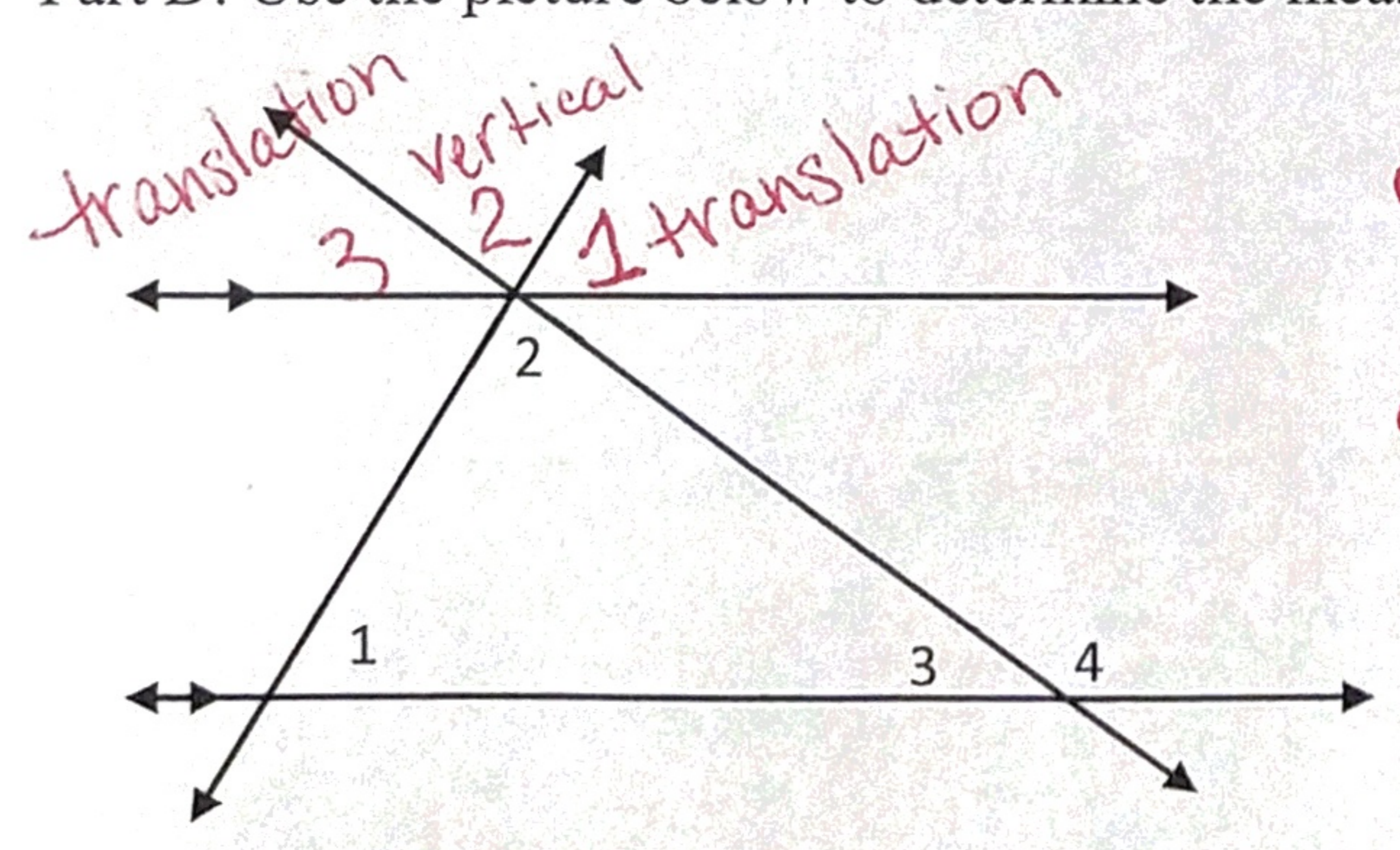
d = _____

ext = in + in

$$d = 37 + 90$$

d = 127

Part D: Use the picture below to determine the measure of the interior angles of a Δ (angle 4) of the triangle.



- $\angle 1, \angle 2, \& \angle 3$ are inside the Δ .
- Use transformation to move them
- Now $\angle 1, \angle 2, \& \angle 3$ make a line
- Lines are 180°

Therefore the int. \angle 's of a Δ add up to 180°