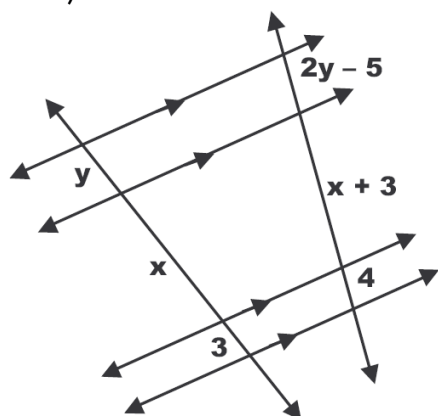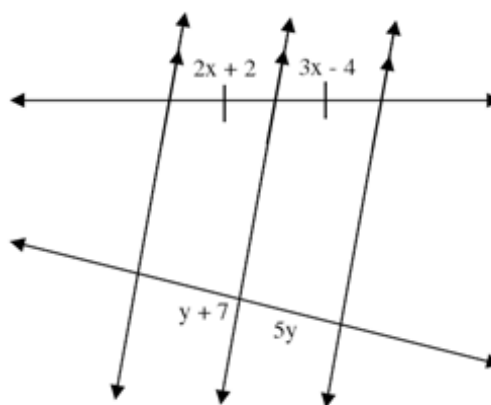**Name:** _____

Proportions and Similar Triangles

Exercise 1: Find the values of x and y.
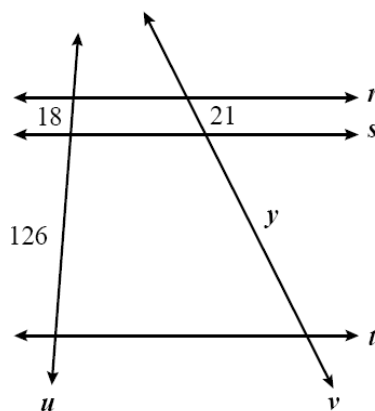
1)

2)

Exercise 2: In the figure below, $r \parallel s \parallel t$. Lines u and v are transversals. What is the length of y?

Exercise 3: Given that $\overline{ST}$ bisects $\angle RSQ$ of $\triangle QRS$. Find the indicated measure.

1) QS =16, RS = 20. QT = x+3, TR= 2x - 3, TR?
2) QS =3, RS = 5. QT = 2x+1, TR =4x-5, TR?
3) QS =8, RS = 12. QR = 10, TR?
4) QS =12, RS = 16. QR = 14, QT?
5) Perimeter of △QRS =27, QT=4, TR= 5, QS=?
6) Perimeter of △QRS =80, QT=14, TR= 18, S=?