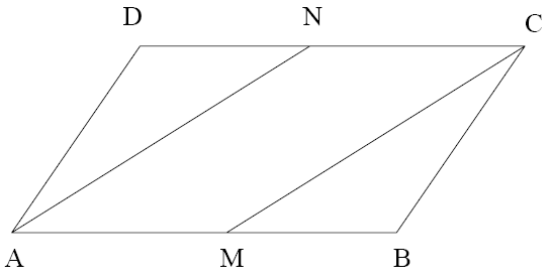
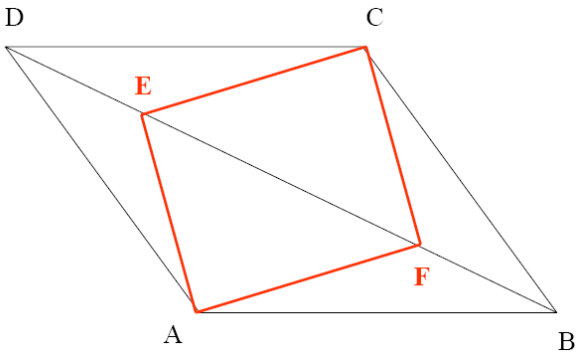
Name: _____

Parallelograms

Exercise 1: Given: parallelogram ABCD; AN bisects ∠DAB; CM bisects ∠BCD
Prove: AMCN is a parallelogram

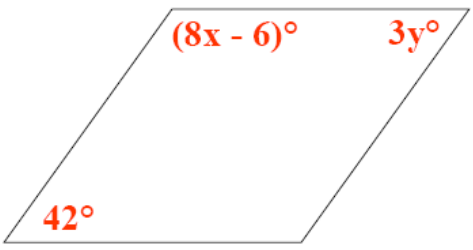


Exercise 2: Given: parallelogram ABCD; DE = BF
Prove: AFCE is a parallelogram

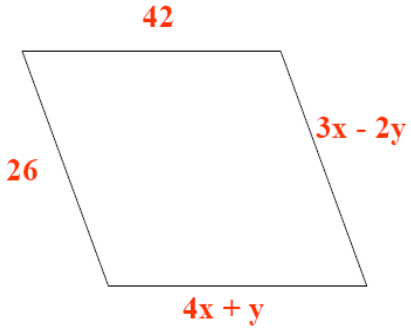


Exercise 3: What values must x and y have to make the quadrilateral a parallelogram?

1)

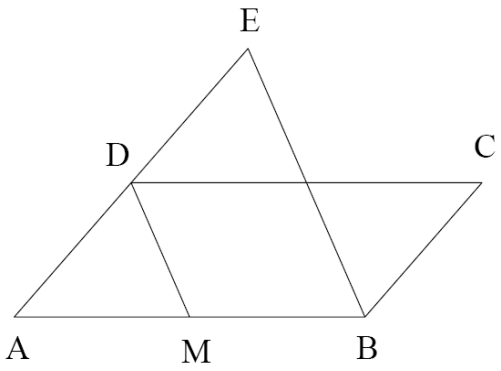


2)



Exercise 4: Given: parallelogram ABCD; M is the midpoint of $\overline{AB}$; $\overline{BE} \cong \overline{MD}$

Prove: DE = BC



Exercise 5: EFGH is a parallelogram whose diagonals intersect at P. M is the midpoint of segment FG. Prove MP = ½EF.

Exercise 6: Given: parallelogram ABZY; AY = BX

Prove: m ∠1 = m ∠3