Unit 8: Congruence transformations

Name:

3 January 2023

## 8.1 Classwork: Construction

1 (	1 , ,1	1 1 •	c	•1 , 1	, • 1	. 1 1.	. 1	
1 ( '0'm	nioto tho	construction	$\alpha$ t $\alpha$ n	COMMISSIONS	trionala	incliding	tho aix	atona
1. C/OIII	1111212 1112	construction	он ан	CUUHAIGIAI	ULIAMETE	-HICHUUHH2		ついている

- (a) Given the line segment  $\overline{MN}$ .
- (b) Construct circle M with radius  $\_$ \_\_\_\_.
- (c) Construct circle \_\_\_\_\_ with radius \_\_\_\_\_.
- (d) Label the intersection P of the two circles.
- (e) Draw line segments \_\_\_\_\_ and \_\_\_\_
- (f)  $\triangle MNP$  is equilateral.

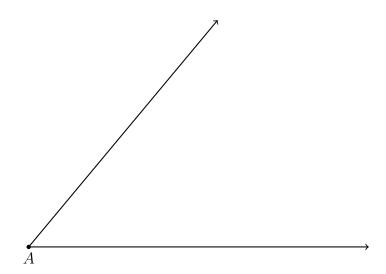


2.	Complete the construction of an equilateral triangle including the six steps.
	(a) Given the line segment $\overline{MN}$ .
	(b)



3 January 2023

- 3. Complete the construction of an angle bisector including the six steps.
  - (a) Given an angle with vertex A.
  - (b) Construct circle A with arbitrary radius (i.e. the radius does not matter).
  - (c) Label the intersections B and C of the angle's rays and circle A.
  - (d) Construct circle B with radius BC.
  - (e) Construct circle \_\_\_\_\_ with radius \_\_\_\_\_.
  - (f) Label D, the intersection of circle B and C.
  - (g) Draw ray \_\_\_\_\_.
  - (h) Ray  $\overrightarrow{AD}$  bisects  $\angle A$ .



4. Complete the construction of a perpendicular bisector including the six steps
(a) Given the line segment $\overline{PQ}$ .
(b)
(c)
(d)
(e) Draw the line
(f) The line is the perpendicular bisector of $\overline{PQ}$ .

