MIDTERM RE TEST (TERM 2 A. Y. 2024)

TEST QUESTIONNAIRE

Part 1: Multiple Choice (35 items)

Standard M5.1/1 Understand and use the knowledge of statistics in presenting and analyzing data from point plot, stem and leaf plot, histogram, frequency table, mean and also apply statistics into real life with appropriate

1. What is the statistical value of the most frequency of the data set?

a. Arithmetic Mean b. Median c. Mode d. Range

2. The results of the knowledge examination of 40 applicants are as follow;

19 34 24 10 18 23 29 11 30 15
38 21 25 40 16 26 23 26 31 14
23 17 18 26 23 14 27 13 19 12
18 17 15 28 36 33 16 32 20 17

What is the range of this data set?

a. 19 b. 20 c. 29 d. 30

3. Suppose the exam of random students are recorded as follows: 20, 25, x, 25, 25, 27, 27, 28, 29 and 28. If the arithmetic mean is 26.1, **what is the value of x**?

a. 25 b. 26 c.27 d. 28

4. What is the median of the following scores 25, 24, 16, 26, 22, 24, 27, 19, 14, 15?

a. 23 b. 23.5 c. 24 d. 24.5

For item 5 – 7, refer to the data on the table below:

Consider the table and answer the questions 12-14

From asking the students of M.2 about their daily allowance;

Allowance (baht)	40	60	80	100
Students	4	5	7	4

5. What is the arithmetic mean of the student's allowance, in baht?

a. 45 baht b. 62 baht c. 71 baht d. 84 baht

6. What is the median?

a. 45 b. 60 c. 70 d. 80

7. What is the mode?

a. 40 b. 60 c. 80 d. 100

LIVEWORKSHEETS

Consider the frequency distribution table and answer the questions no. 8 - 10

The frequency distribution table of the math test scores of all 80 students with a full score of 100 as follow;

Exam scores	f	Class Boundary
31-40	6	30.5 – 40. 5
41-50	14	40. 5 – 50. 5
51-60	15	50. 5 – 60. 5
61-70	16	60.5 – 70.5
71-80	11	70.5 – 80.5
81-90	13	80.5 – 90.5
91-100	5	90.5 – 100.5
Total	80	

8. Which class has the smallest frequency of data?

a. 61-70 b. 71-80 c. 81-90 d. 91-100

9. From the frequency distribution table, if the passing score of the test is above 50, how many students failed the test?

a. 20 students b. 60 students c. 6 students d. 19 students

10. How many percent of students scored more than 50% ?

a. 55% b. 80% c. 75% d. 25%

11. What is the upper boundary of the class with the highest frequency?

a. 60.5 b. 70.5 c. 50.5 d. 100.5

For items 12 -13, refer to the figure on the right.

12. How many households that has an annual income less than 10,000?

a. 8 b. 1

c. none d. 8,000

13. What is the mode of the annual household income shown on the right?

a. 10,000 b. 11,000

c. 42,000 c. 8,000

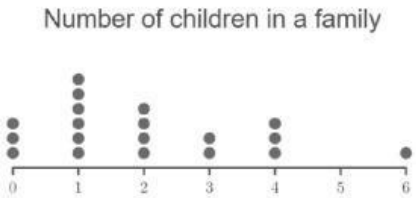
Annual Household Income

Stem	Leaf
0	8
1	0 0 1 1 1 1 1 3 6 6 6 8 8
2	0 3 5 9
3	1 2 7
4	1 2

Key: 1|3 = 13,000

LIVEWORKSHEETS

For items 14– 15. Consider the dot plot on the right:



14. What is the median number of children in the family shown in the dot plot above?

a. 0 b. 1 c. 2 d. 3

15. What is the mode of the dot plot above?

a. 0 b. 1 c. 2 d. 6

Standard M3.2/1 Understand and apply the properties of congruent triangles to solve mathematical problems and real-life problems.

16. Which does not make two triangles congruent?

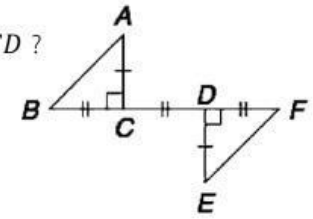
a. 3 pairs of angles are the same

b. 3 pairs of sides are the same

c.2 pairs of sides are the same and angle between both sides are the same

d. 2 pairs of angles are the same and the arm of both angles has the same length

17. Which property of congruence can be used to determine if $\Delta ABC \cong \Delta EFD$?



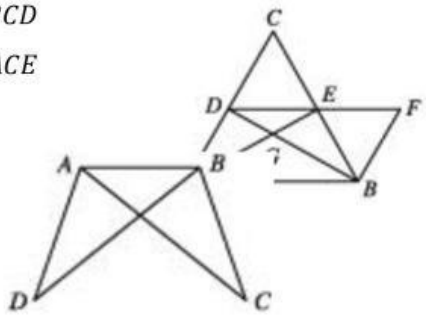
a. SAS b. SSS

c. ASA d. RHS

18. From the image below, AC // BF and DE= EF. Which congruent statement is correct?

a. $\Delta CDE \cong \Delta BFE$ b. $\Delta ACE \cong \Delta BCD$

c. $\Delta ADG \cong \Delta BEG$ d. $\Delta ABE \cong \Delta ACE$



For items 19 – 20, refer to the figure on the right:

Given: $AD = BC$ and $DB = AC$

19. Which of the following proves that ΔABD and ΔABC are congruent triangles?

a. SSS congruence b. SAS congruence

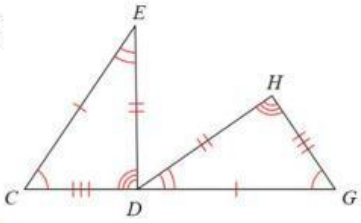
c. ASA congruence d. AAS congruence

20. Which angle is corresponding to $\angle ACB$?

a. $\angle BAD$ b. $\angle BDA$ c. $\angle DBA$ d. $\angle CAB$

LIVEWORKSHEETS

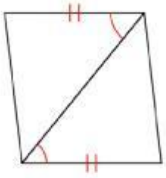
21. Which of the following statement indicates that the two $\Delta's$ are congruent?



a. $\Delta ECD \cong \Delta HGD$ b. $\Delta EDC \cong \Delta HGD$

c. $\Delta CED \cong \Delta GDH$ d. $\Delta EDC \cong \Delta GHD$

22. Determine if the two triangles are congruent and state the reason.

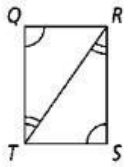


a. SAA congruence b. SAS congruence

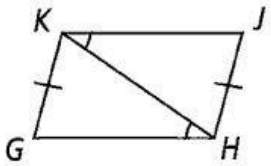
c. ASA congruence d. $\ncong$, not enough information

23. Which pair of triangles can be proven congruent by the A-A-S congruence?

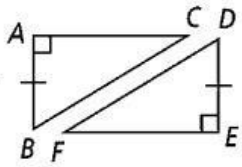
a.



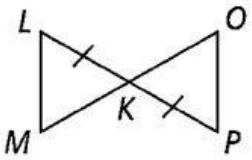
b.



c.



d.



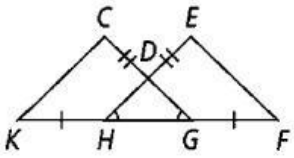
24. Which property of congruence can be used to prove $\Delta KGC \cong \Delta FHE$?

a. A-S-A congruence

b. S-A-S congruence

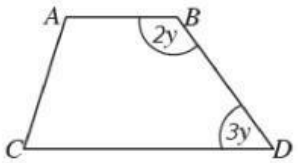
c. S-S-S congruence

d. A-A-S congruence



Standard M3.2/1 Apply the knowledge of the properties of parallel lines and triangles to solve mathematical problems.

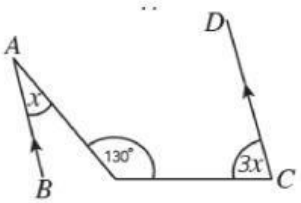
25. *AB // CD, what is the value* of *y* ?



a. 36 b. 37

c. 38 d. 39

26. From *AB // CD, what is the measure of x?*



a. 15° b. 30°

c. 65° d. 25°

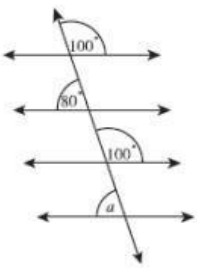
27. From picture, what is the value of *a? if 4 straight lines are parallel.*

a. 100°

b. 80°

c. 60°

d. 50°



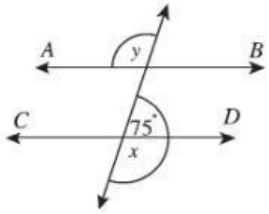
LIVEWORKSHEETS

28. Which of the following statements is/are true?

1. Two angles that are supplementary are also equal.
2. Alternate- interior – exterior angles add up to 180^0.
3. Corresponding angles are congruent.
4. Vertical angles are equal in measure.

a. 1, 2, 3 and 4 b. 2 and 4 c. 2, 3, and 4 d. 3 and 4

29. From the image below, *If AB // CD,* what is the value of *y?*



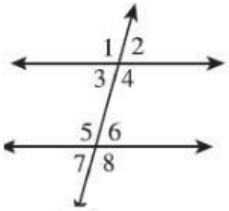
a. 120° b. 110°

c. 105° d. 100°

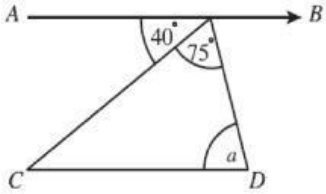
30. Which statement is correct?

a. $\angle 4 + \angle 6 = 240^0$ b. $\angle 1 = \angle 3$

c. $\angle 2 = \angle 5$ d. $\angle 7 = \angle 3$



31. If *AB // CD, what is the value of a?*



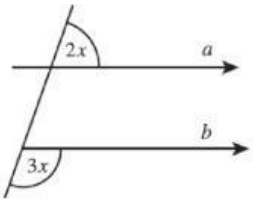
a. 35°

b. 45°

c. 55°

d. 65°

32. If *a // b, what is the value of x?*



a. 30°

b. 36°

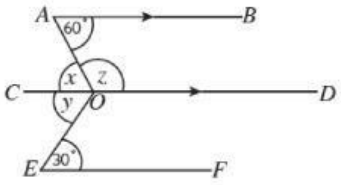
c. 37°

d. 38°

LIVEWORKSHEETS

For items 33 – 35, refer to the figure below:

Let *AB // CD // EF*



33. What is the value of *x*?

a. 28°

b. 30°

c. 56°

d. 60°

34. What is the value of *y*?

a. 28°

b. 30°

c. 56°

d. 60°

35. What is the value of *z*?

a. 112°

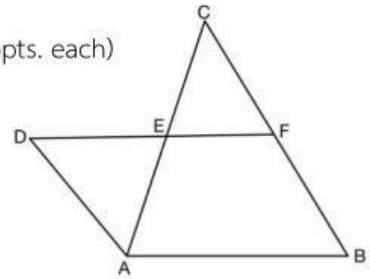
b. 116°

c. 118°

d. 120°

Part 2: Solving (10pts.)

Instructions: Solve each item and show your solutions as much as possible. (5pts. each)



1. Complete the two - column proof.

Given: $\overline{AC}$ and $\overline{DF}$ bisect each other at pt. E

Prove: $\Delta DEA \cong \Delta FEC$

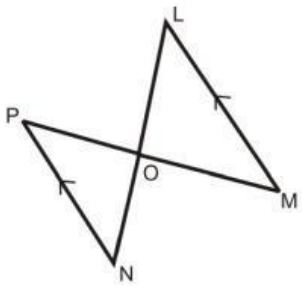
STATEMENTS	REASONS
1.	1.
2.	2.
3.	3.
4.	4.
5. $\therefore \Delta DEA \cong \Delta FEC$	5.

LIVEWORKSHEETS

2. Complete the two -column proof.

Given: $\overline{PN} \parallel \overline{LM}$ and O is a midpoint of $\overline{LN}$

Prove : $\Delta PON \cong \Delta MOL$



STATEMENTS	REASONS
1. $\overline{PN} \parallel \overline{LM}$	1.
2. $\angle NPO \cong \angle LMO$	2. alternate – interior angles formed by parallel lines and transversal line are congruent
3.	3. Given
4.	4.
5.	5.
6. $\therefore \boldsymbol{\Delta PON \cong \Delta MOL}$	6.

LIVEWORKSHEETS