Practice test Test 3 Lines and Angles

Multiple Choice
Identify the choice that best completes the statement or answers the question.

Figure 5-3

1. Name two obtuse angles in Figure 5-3 above.
   a. $\angle SRW, \angle VRW$  
   b. $\angle QRV, \angle VRS$  
   c. $\angle QRW, \angle TRW$  
   d. $\angle QRT, \angle TRS$

2. Name a right angle in Figure 5-3 above.
   a. $\angle QRW$  
   b. $\angle QRV$  
   c. $\angle TRW$  
   d. $\angle QRT$

3. Name two acute angles in Figure 5-3 above.
   a. $\angle QRV, \angle VRS$  
   b. $\angle QRW, \angle TRW$  
   c. $\angle QRT, \angle VRS$  
   d. $\angle QRT, \angle VRW$

4. Name a pair of complementary angles in Figure 5-3 above.
   a. $\angle QRV, \angle VRS$  
   b. $\angle VRW, \angle SRW$  
   c. $\angle QRT, \angle VRS$  
   d. $\angle QRV, \angle VRW$
5. What is the distance between $LS$?

- a. 1
- b. 16
- c. 2
- d. 14

6. A state’s license plates have 4 letters followed by 2 numbers. How many plates are possible?

- a. $26 \cdot 10$
- b. $26 \cdot 26 \cdot 26 \cdot 26 \cdot 2 \cdot 2$
- c. $26 \cdot 26 \cdot 26 \cdot 26 \cdot 10 \cdot 10$
- d. $26 \cdot 3 \cdot 10 \cdot 3$

In the figure, line $g$ // line $h$. Find the measure of each given angle.

7. $\angle 5$

- a. $161^\circ$
- b. $151^\circ$
- c. $29^\circ$
- d. $19^\circ$

8. $\angle 2$

- a. $29^\circ$
- b. $151^\circ$
- c. $161^\circ$
- d. $19^\circ$
9. How many different ways can Chris stack 5 CDs in his CD player?
   a. 15  b. 120  c. 5  d. 25

10. Find the midpoint between (1, 2) and (5, 4)
   a. (2, 3)  b. (6, 6)  c. (3, 3)  d. (2, 1)

11. How far is it from the dog to the bird?
   a. 400 ft  b. 24 ft  c. 20 ft  d. 22 ft

12. What is the midpoint between UO?
   a. -6  b. 2  c. 4  d. -4
13. Erick is going to have a pizza. The possible toppings are pepperoni, sausage, onions, mushroom, olive, or anchovies. The crust can be thin, regular, thick, or pan. How many different ways can he order his pizza if he only orders the pizza with one topping?
   a. 9  b. 24  c. 20  d. 45

14. Classify each triangle by its sides.
   a. acute  b. scalene  c. equilateral  d. isosceles

15. Find the value of $x$ in each quadrilateral.
   a. $103^\circ$  b. $269^\circ$  c. $89^\circ$  d. $134^\circ$
16. Classify each triangle by its angles.

![Triangle with angles 59°, 62°, and 59°]

a. equilateral  
   b. obtuse  
   c. acute  
   d. right

17. Find the distance between (3, -1) and (0, 3)

![Distance formula]

a. 25  
   b. 16  
   c. 9  
   d. 5

18. Classify the angle pair using all names that apply.

![Angle pair with 1 and 2]

a. vertical, complementary  
   b. adjacent, complementary  
   c. supplementary  
   d. vertical
19. Give the best name that apply to the figure.

- a. rectangle  
- b. rhombus  
- c. square  
- d. parallelogram

20. Find the value of $x$ in each triangle.

- a. $53^\circ$  
- b. $31^\circ$  
- c. $233^\circ$  
- d. $38^\circ$

21. Find $n$ in the obtuse triangle.

- a. $20^\circ$  
- b. $44^\circ$  
- c. $24^\circ$  
- d. $136^\circ$
22. Classify the angle pair using all names that apply.

- adjacent, supplementary
- vertical, supplementary
- adjacent
- supplementary

In the figure, line m // line n. Find the measure of each given angle.

23. \( \angle 7 \)

- a. 153°
- b. 117°
- c. 27°
- d. 63°

24. \( \angle 4 \)

- a. 27°
- b. 117°
- c. 63°
- d. 153°

25. A number cube is rolled and a quarter is tossed. Find \( P(4 \text{ and tails}) \).

- a. \( \frac{1}{12} \)
- b. \( \frac{1}{18} \)
- c. \( \frac{2}{3} \)
- d. \( \frac{1}{2} \)
26. Classify each triangle by its sides.

24.9 yd

a. equilateral  b. isosceles  c. scalene  d. right

27. Find the missing angle measures in the isosceles triangle.

40°

a. $b = 70°$  b. $b = 11.8°$  c. $b = 20°$  d. $b = 120°$
28. In the figure below the angles are formed by a transversal and two parallel lines. Which explains why \( \angle 7 \) and \( \angle 1 \) are congruent.

a. They are alternate interior angles.  

b. They are alternate exterior angles.  

c. They are corresponding angles.  

d. They are supplementary angles.

29. Find the value of \( x \) in each quadrilateral.

\[
\begin{array}{c}
\text{120} \ ^\circ & x \ ^\circ \\
\text{50} \ ^\circ & \text{41} \ ^\circ \\
\end{array}
\]

a. 329\(^\circ\)  

b. 149\(^\circ\)  

c. 104\(^\circ\)  

d. 168\(^\circ\)

30. In the figure below the angles are formed by a transversal and two parallel lines. Which explains why \( \angle 6 \) and \( \angle 4 \) are congruent.

a. They are alternate interior angles.  

b. They are corresponding angles.  

c. They are supplementary angles.  

d. They are alternate exterior angles.
31. Which graph best represents the following chart?

<table>
<thead>
<tr>
<th>x</th>
<th>-3</th>
<th>3</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>y</td>
<td>1</td>
<td>-1</td>
<td>-2</td>
</tr>
</tbody>
</table>
Use the figure showing two parallel lines cut by a transversal.

___ 32. Find \( m\angle 2 \) if \( m\angle 1 = 65^\circ \).
   a. 165°  b. 115°  c. 25°  d. 70°

___ 33. Find \( m\angle 1 \) if \( m\angle 6 = 130^\circ \).
   a. 85°  b. 30°  c. 50°  d. 40°

___ 34. Write a congruence statement for the pair of polygons.

   a. \( \triangle MLP \cong \triangle OMN \)  b. \( \triangle LMP \cong \triangle NMO \)  c. \( \triangle PML \cong \triangle ONM \)  d. Not congruent
35. Write a congruence statement for the pair of polygons.

a. Triangle FGH ≅ triangle JKL
b. Triangle HFG is congruent to triangle KLJ.
c. Triangle FGH ≅ triangle LJK
d. Triangle FGH ≅ triangle KLJ

36. Classify each angle.

a. adjacent   b. acute   c. obtuse   d. straight

37. Draw a tree diagram or use the Fundamental Counting Principle to find the number of possible outcomes if there are 4 true-false questions on a quiz.

a. 12   b. 16   c. 6   d. 8
38. Write a congruence statement for the pair of polygons.

- Quadrilateral EFGH ≅ quadrilateral MNKL
- Quadrilateral EFGH ≅ quadrilateral LMNK
- Quadrilateral EFGH ≅ quadrilateral NKLM.
- Quadrilateral EFGH ≅ quadrilateral KLMN

39. Find \( g \) in the right triangle.

- \( 124^\circ \)
- \( 34^\circ \)
- \( 146^\circ \)
- \( 56^\circ \)

40. Classify each angle.

- acute
- obtuse
- right
- complementary
41. Classify each triangle by its sides.

- a. equilateral
- b. obtuse
- c. isosceles
- d. scalene

42. Find \( C(7, 3) \) or \( \binom{7}{3} \).

- a. 840
- b. 210
- c. 21
- d. 35

43. Classify each triangle by its angles.

- a. isosceles
- b. obtuse
- c. equiangular
- d. right
44. Give the best name that apply to the figure.

![Figure](image)

a. square  b. parallelogram  c. rhombus  d. rectangle

45. There are 4 white tokens and 6 blue tokens in a bag. Once a token is selected, it is not replaced. Find the probability of selecting two white tokens.

a. \( \frac{8}{15} \)  b. \( \frac{1}{15} \)  c. \( \frac{4}{15} \)  d. \( \frac{2}{15} \)

46. Classify -2.

a. rational

b. whole number, integer, rational

c. integer, rational

d. irrational

47. Five students are finalists in a spelling bee. How many ways can they finish first, second and third place?

a. 60  b. 20  c. 120  d. 3
48. Give the best name that apply to the figure.

![Diagram of a figure with labels E, F, G, and H, with line segments EF and GH parallel.]

a. Rhombus  b. Rectangle  c. Trapezoid  d. Quadrilateral

49. There are 3 red, 1 blue and 2 yellow marbles in a bag. Once a marble is selected it is replaced. Find P(red then yellow).

a. $\frac{2}{5}$  b. $\frac{1}{6}$  c. $\frac{1}{5}$  d. $\frac{5}{6}$

50. Find $P(5, 2)$ or $\binom{5}{2}$.

a. 20  b. 3  c. 10  d. 60

51. Give the best name that apply to the figure.

![Diagram of a square with vertices labeled A, B, C, and D, with diagonals intersecting at the center.]

a. parallelogram  b. square  c. rhombus  d. rectangle

52. There are 3 red, 1 blue and 2 yellow marbles in a bag. Once a marble is selected it is not replaced. Find P(red then yellow).

a. $\frac{1}{6}$  b. $\frac{2}{5}$  c. $\frac{5}{6}$  d. $\frac{1}{5}$
Practice test Test 3 Lines and Angles
Answer Section

MULTIPLE CHOICE

1. C
2. B
3. D
4. B
5. D
6. C
7. A
8. D
9. B
10. C
11. C
12. A
13. B
14. B
15. C
16. C
17. D
18. D
19. B
20. A
21. D
22. A
23. B
24. C
25. A
26. A
27. A
28. A
29. B
30. D
31. D
32. B
33. C
34. B
35. D
36. C
37. B
38. A
39. D
40. A
41. C
42. D
43. D
44. D
45. D
46. C
47. A
48. C
49. B
50. A
51. B
52. D