Geometry Blizzard Bag #2

Directions: Complete the following review sheet from Chapters 1 to 4. Be sure to show your work. You will have 2 weeks to complete from the "Snow Day." No Late work will be accepted.

Enjoy!

4 Standardized Test Practice

SCORE

(Chapters 1-4)

Part 1: Multiple Choice

Instructions: Fill in the appropriate circle for the best answer.

1. If $m \angle 1 = 5x - 4$ and $m \angle 2 = 52 - 9y$, which values for x and y would make $\angle 1$ and ∠2 complementary? (Lesson 1-5)

$$Ax = 2, y = 12$$

$$Cx = 12, y = 2$$

B
$$x = 27, y = \frac{1}{3}$$

D
$$x = \frac{1}{3}, y = 27$$

2. Which is *not* a polygon? (Lesson 1-6)







- 2. (F) (G) (H) (J)
- 3. Complete the statement so that its conditional and its converse are true.

If
$$\angle 1 \cong \angle 2$$
, then $\angle 1$ and $\angle 2$?. (Lesson 2-3)

A are supplementary.

C are complementary.

B have the same measure.

D are consecutive interior angles.

3. A B C D

4. Complete this proof. (Lesson 2-7)

Given: $\overline{UV} \cong \overline{VW}$

 $\overline{VW} \cong \overline{WX}$

Prove: UV = WX

Proof:

	Wr	—_x
_	\	/

Statements	Reasons		
1. $\overline{UV} \cong \overline{VW}$; $\overline{VW} \cong \overline{WX}$	1. Given		
2. $UV = VW$; $VW = WX$	2. ?		
3. $UV = WX$	3. Transitive Property		

- F Definition of congruent segments
- G Substitution Property
- H Segment Addition Postulate
- J Symmetric Property

- 4. (F) (G) (H) (D)
- 5. Which equation has a slope of $\frac{1}{3}$ and a y-intercept of -2? (Lesson 3-4) A $y = \frac{1}{3}x + 2$ C $y = \frac{1}{3}x 2$ B $y = 2x \frac{1}{3}$ D $y = -2x + \frac{1}{3}$

$$Ay = \frac{1}{3}x + 2$$

$$Cy = \frac{1}{3}x - 2$$

B
$$y = 2x - \frac{1}{3}$$

D
$$y = -2x + \frac{1}{3}$$

- 5. A B C D
- 6. Classify $\triangle DEF$ with vertices D(2, 3), E(5, 7) and F(9, 4). (Lesson 4-1)
 - F acute
- G equiangular
- H obtuse
- J right
- 6. (F) (G) (H) (I)

- 7. Which postulate or theorem can be used to prove $\triangle ABD \cong \triangle CBD$? (Lesson 4-4)
 - A SAS
- C SSS
- B ASA
- D AAS



7. A B C D

4 Standardized Test Practice (continued)

8. If the volume of a cylinder with a height of 3 feet is 75π cubic feet, find the surface area of the cylinder in square feet. (Lesson 1-7)

F 25π

 $G 50\pi$

H 80n

 $J 30\pi$

8. (F) (G) (H) (J)

9. Let C be the midpoint of the line segment AB having endpoints A(2, -7) and B(6, -3). Find the length of \overline{CB} . (Lesson 1-3)

A $2\sqrt{2}$ units

 $\mathbf{B}\sqrt{53}$ units

C $2\sqrt{5}$ units

 $\mathbf{D}\sqrt{10}$ units

9. A B C D

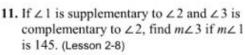
10. Find x so that $p \parallel q$. (Lesson 3-5)

F 11.50

H 20.5

G 20

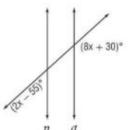
J 25



A 35

C 55

B 45 D 90



10. (F) (G) (H) (J)

- 11. A B C D
- 12. Let $\triangle ABC$ be an isosceles triangle with $\triangle ABC \cong \triangle PQR$. If $m \angle B = 154$, find $m \angle R$. (Lesson 4-3)

F 154

G 126

H 26

J 13

12. (F) (G) (H) (J)

13. In proving the congruence of two triangles, which postulate involves an included angle? (Lessons 4-4 and 4-5)

A SSS

B SAS

CASA

D AAS

13. A B C D

14. $\triangle POR$ is an isosceles triangle with base \overline{QR} . If $m \angle P = 6x + 40$ and $m \angle Q = x - 10$, find x. (Lesson 4-6)

F 20

G 25

H 30

J 100

14. (F) (G) (H) (J)

Part 2: Gridded Response

Instructions: Enter your answer by writing each digit of the answer in a column box and then shading in the appropriate circle that corresponds to that entry.

15. If $\overline{JK} \parallel \overline{LM}$, then $\angle 4$ must be supplementary to ∠ ?. (Lesson 3-5)

QR = x + 7, and PR = 6x - 12. (Lesson 4-1)



16. Find PR if $\triangle PQR$ is isosceles, $\angle Q$ is the vertex angle, PQ = 4x - 8,



16.

15.

	0	0	0	, i
0	0	0	0	0
0000000000	0000000000	0000000000	0000000000	0000000000

0000

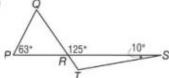
4 Standardized Test Practice (continued)

Part 3: Short Response

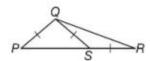
Instructions: Write your answer in the space provided.

- 17. The perimeter of a regular pentagon is 14.5 feet. Find the new perimeter if the length of each side of the pentagon is doubled. (Lesson 1-6)
- 18. Make a conjecture about the next number in the sequence 5, 7, 11, 17, 25. . . . (Lesson 2-1)
- 18.

19. Find *m∠PQR*. (Lesson 4-2)

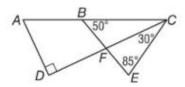


20. If PQ = QS, QS = SR, and $m \angle R = 20$, find $m \angle PSQ$. (Lesson 4-6)



- **21.** Name the corresponding congruent angles and sides for $\triangle PQR \cong \triangle HGB$. (Lesson 4-3)
- 21.____

22. Refer to the figure at the right to answer the questions below.



- **a.** Name the segment that represents the distance from F to \overrightarrow{AD} . (Lesson 3-6)
- 22a.

b. Classify △ADC. (Lesson 4-1)

c. Find m∠ACD. (Lesson 4-2)

22c.