Geometry Part I Exam Review

Can you apply what you know?

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Block\_\_\_\_

Date of A Day Exam: Wednesday, January 21

Date of B Day Exam: Thursday, January 22

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| **1-3: Use the given figure to answer each question.**   1. What is the intersection of plane P and Plane ACD? 2. Name 3 collinear points. 3. How many planes can be drawn   through points A, B, and C?  **4-6: Use the given segment to answer each question.**  -18  W  X  Y  -10  22   1. WY = \_\_\_\_\_\_\_\_. 2. Find the midpoint of . 3. If X is the midpoint of, find the coordinate of T.   **7-12: Use the given points to answer each. A(-2, 5), B(-3, 8)**   1. Find the midpoint of. 2. Find the length of. 3. Find the slope of. 4. Find the slope of a line perpendicular to. 5. Find the slope of a line parallel to. 6. Write the equation line going through A and B. 7. Find x and m∠1.     39°  (2x - 7)°  1   1. In the figure, if ∠1 and ∠3 are supplementary,   1  3  4  5  2  6  7  then ∠1 and \_\_\_\_\_\_\_are supplementary.  **25-29: Given:**  **If** **m ⊥ n, then ∠3 ≅ ∠4**  **Write each statement.**   1. The hypothesis 2. The conclusion 3. The inverse 4. The converse 5. The contrapositive   U  R  S  1  2   1. If ∠1 ≅ ∠2, m∠1 = 6x –30 and   m∠URS = 5x + 24, then x = \_\_\_.     1. In #30, if m∠URS = 90, then ∠1 and ∠2   are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ angles.  **32-34: Draw a Venn Diagram for each question below.**   1. All dogs love bones 2. Most teachers are caring. 3. No students are seniors.   **35-37: Use the figure to answer each question.**   1. Name a plane parallel to plane QPS. 2. Name a segment parallel to 3. Name a segment skew to   1200  y°   1. What does y have to be for   the picnic tabletop to be  parallel to the ground?     1. For the staircase shown, what value   470  xº  *railing→*  *runner→*  of x would make the railing  parallel to the runner?     1. If two sides of a triangle have lengths 7 and 13, what is   the range of the third side.   1. In an isosceles right triangle, the measure of each acute   angle is\_\_\_\_\_\_\_\_\_\_.  1  2  3  4   1. If m∠3 = 65, then m∠1 is \_\_\_\_\_\_\_\_\_. 2. In an equilateral triangle, the measure of each angle is\_\_\_\_\_\_\_\_.   **54-57: Do the 3 side lengths form a triangle? Show work to**  **justify your answer.**   1. 1, 1, and 3 2. 1, 2, and 3 3. 1, 2, and 2.4 4. 7, 8, and 17 5. Which two cities are farthest apart?   *Madrid*  54°  58°  *London*  *Paris*     1. In isosceles triangle DEF, DE = DF. If DE = 2x + 14,   DF = 5x –1, and EF = 2x + 3, then the perimeter of triangle DEF is\_\_\_\_\_\_\_.   1. What is the approximate length of?   A  C  B  22 in.  8 in.     1. If ΔIGH ≅ ΔKLJ, then ∠H is congruent to \_\_\_\_\_\_\_\_. 2. In ΔPBL, what is the included angle for  ? 3. If quadrilateral ABCD is similar to quadrilateral EFGH,   A  B  C  D  80°  F  G  H  E  80°  125°  then what is m∠D?   1. If , find x.   R  6  T  10  Q  x  S  P  14   1. If 5 : 8 = 10 : x, then what is the value of x? 2. Given the 2 similar quadrilaterals, find the scale factor, and then find x and z.   18  9  x  z  6  10  8     1. Find x and y.   9  3  12  y  x  8   1. If ΔEFD ~ ΔSTR, then ΔDEF ~ \_\_\_\_\_\_\_\_\_. | **15-16: Given: AM = 3x + 2, MB = 5x – 1, and AB = 25**  A  M  B   1. Find x **and** MB. 2. AM + \_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_ is an example of the   segment addition property  E  H  G  R  T  **17: Given: E is the midpoint of**  **EH = 5x – 24 and EG = 2x – 3**   1. Find x **and** EG.   800  300  x0   1. In the figure, x = \_\_\_\_\_.      1. The complement of an angle is five times as large as the angle. Find the degree measure of the two angles.   **20-24: Given: p: Fido is smart; q: He can jump**  **Write a conditional statement for each symbolic statement.**   1. p → ~ q 2. q → ~ p 3. q → p 4. ~ p → ~ q 5. ~ q → ~ p   **40-44: Use the diagram to answer each.**  1  16  15  14  13  12  10  11  9  8  7  6  5  4  3  2  d  c  b  a   1. If m∠1 = 750, which angle(s) must measure 1050   for line a to be parallel to line b? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   1. ∠8 and ∠4 are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ angles. 2. If a || b and m∠9 = 520, then m∠14 = \_\_\_\_\_\_. 3. If c || d, m∠6 = 3x + 5 and m∠11 = 7x + 3, then x = \_\_\_\_\_ 4. If m∠3 = 800, then m∠1 = \_\_\_\_\_\_\_. 5. Given: . Write an equation that is: 6. Parallel to it: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7. Perpendicular to it: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8. Given: m∠1 = 42°, find the following:   1  2  3  4  5  m∠2 = \_\_\_\_\_\_\_\_.  m∠3 = \_\_\_\_\_\_\_\_.  m∠4 = \_\_\_\_\_\_\_\_.  m∠5 = \_\_\_\_\_\_\_\_.  x°  x°  800  400   1. For the fence gate shown,   what value of x would make  the gate perpendicular  to the ground?   1. Find x.   53°  27°  x°   1. List the angles in order from   B  A  C  9  8  11  **SMALLEST** to **LARGEST.**   1. Name one additional pair of   P  T  S  O  K  M  corresponding parts that  need to be congruent in  order to prove that  ΔSTP ≅ ΔMKO by **SAS.**   1. If ΔWIN ≅ ΔLUV, m∠W = 38, m∠V = 102, and   m∠I = 7x + 5, then find the value of x  **65-70: Determine which postulate or theorem will prove the triangles congruent (SSS, SAS, ASA, AAS, or HL).**   1. **66.**   **67. 68.**   1. **70.**   A  E  D  C  B  **71-74: Draw a rough sketch of each construction:**   1. An angle bisector. 2. A perpendicular bisector. 3. A line perpendicular to a segment   from a point not on the line.   1. A line perpendicular to a segment   from a point on the line.   1. If ∠J∠M, then ΔJKN ~ \_\_\_\_\_\_\_\_\_. Find x.   M  J  18  K  12  15  N  20  x  L   1. Given:  Solve for x. 2. A six foot man casts a four foot shadow. At the same time, a monument casts a 24 foot shadow. How tall is   the monument?  **84-90: Write what property is represented by the problem.**   1. If AB = CD, then AB – 2 = CD – 2 2. If AB = CD, then AB + 10 = CD + 10 3. If 3(4x – 5), then 12x – 15 4. If a = b, then b = a 5. If a = b, and b = c, then a = c 6. DA = DA 7. If AB + CD = EF, and AB = 9, then 9 + CD = EF |

**If you do this exam review with all diligence, and ask questions during the next block, then you will be prepared for your exam and have a good chance of doing well on it! You can do this! ☺**