

Name: _____
Date: _____
Class: _____

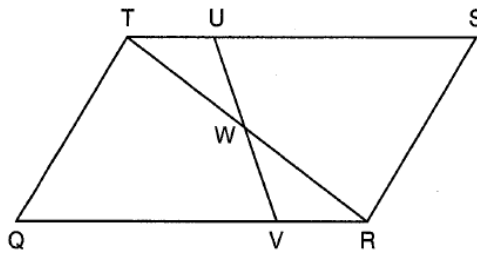
Geometry
Review
Graded Homework 19

Show all of your work for every problem. The numbers in the brackets are the points that each problem is worth. Multiple Choice Problems are worth 3.
NO WORK = ZERO CREDIT

- 1) [3] An equation of a line perpendicular to the line represented by the equation $y = -\frac{1}{2}x - 5$ and passing through $(6, -4)$ is

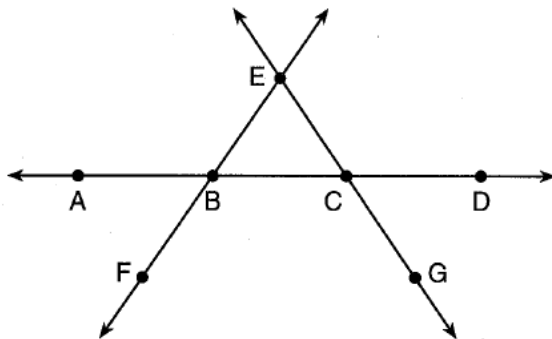
(1) $y = -\frac{1}{2}x + 4$ (3) $y = 2x + 14$
(2) $y = -\frac{1}{2}x - 1$ (4) $y = 2x - 16$

- 2) [3] In parallelogram $QRST$ shown below, diagonal \overline{TR} is drawn, U and V are points on \overline{TS} and \overline{QR} , respectively, and \overline{UV} intersects \overline{TR} at W .



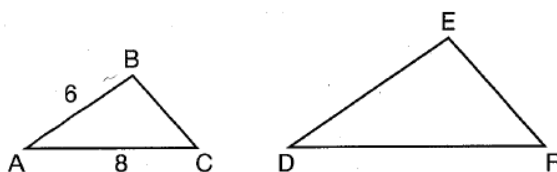
- If $m\angle S = 60^\circ$, $m\angle SRT = 83^\circ$, and $m\angle TWU = 35^\circ$, what is $m\angle WVQ$?
- (1) 37° (3) 72°
(2) 60° (4) 83°
- 3) [3] Which transformation would result in the perimeter of a triangle being different from the perimeter of its image?
- (1) $(x, y) \rightarrow (y, x)$ (3) $(x, y) \rightarrow (4x, 4y)$
(2) $(x, y) \rightarrow (x, -y)$ (4) $(x, y) \rightarrow (x + 2, y - 5)$
- 4) [3] In $\triangle ABC$, the complement of $\angle B$ is $\angle A$. Which statement is always true?
- (1) $\tan \angle A = \tan \angle B$ (3) $\cos \angle A = \tan \angle B$
(2) $\sin \angle A = \sin \angle B$ (4) $\sin \angle A = \cos \angle B$

- 5) [3] In the diagram below, \overleftrightarrow{FE} bisects \overline{AC} at B , and \overleftrightarrow{GE} bisects \overline{BD} at C .



Which statement is always true?

- (1) $\overline{AB} \cong \overline{DC}$ (3) \overleftrightarrow{BD} bisects \overleftrightarrow{GE} at C .
 (2) $\overline{FB} \cong \overline{EB}$ (4) \overleftrightarrow{AC} bisects \overleftrightarrow{FE} at B .
- 6) [3] In the diagram below, $\triangle ABC \sim \triangle DEF$



If $AB = 6$ and $AC = 8$, which statement will justify similarity by SAS?

- (1) $DE = 9$, $DF = 12$, and $\angle A \cong \angle D$
 (2) $DE = 8$, $DF = 10$, and $\angle A \cong \angle D$
 (3) $DE = 36$, $DF = 64$, and $\angle C \cong \angle F$
 (4) $DE = 15$, $DF = 20$, and $\angle C \cong \angle F$
- 7) [3] The endpoints of one side of a regular pentagon are $(-1,4)$ and $(2,3)$. What is the perimeter of the pentagon?
- (1) $\sqrt{10}$ (3) $5\sqrt{2}$
 (2) $5\sqrt{10}$ (4) $25\sqrt{2}$
- 8) [3] The coordinates of the vertices of $\triangle RST$ are $R(-2,-3)$, $S(8,2)$, and $T(4,5)$. Which type of triangle is $\triangle RST$?
- (1) right (3) obtuse
 (2) acute (4) equiangular
- 9) [3] The ratio of similarity of $\triangle BOY$ to $\triangle GRL$ is 1:2. If $BO = x + 3$ and $GR = 3x - 1$, then the length of \overline{GR} is
- (1) 5 (3) 10
 (2) 7 (4) 20