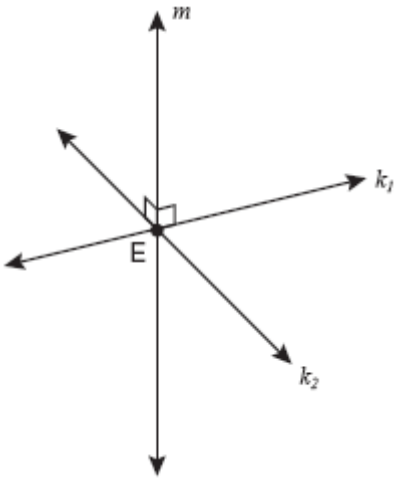
NAME:_____

1. fall0816ge, P.I. G.G.1
Lines k_1 and k_2 intersect at point E. Line m is perpendicular to lines k_1 and k_2 at point E.



Which statement is always true?

[A] Lines k_1 and k_2 are perpendicular.

[B] Line m is perpendicular to the plane determined by lines k_1 and k_2.

[C] Line m is parallel to the plane determined by lines k_1 and k_2.

[D] Line m is coplanar with lines k_1 and k_2.

2. 060918ge, P.I. G.G.2
Point P is on line m. What is the total number of planes that are perpendicular to line m and pass through point P?

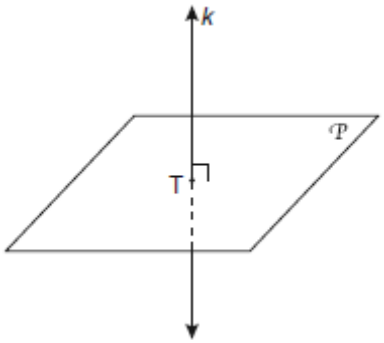
[A] infinite [B] 1 [C] 2 [D] 0

3. 080927ge, P.I. G.G.4
If two different lines are perpendicular to the same plane, they are

[A] coplanar [B] collinear

[C] congruent [D] consecutive

4. 080914ge, P.I. G.G.7
In the diagram below, line k is perpendicular to plane $\mathcal{P}$ at point T.



Which statement is true?

[A] Only one line in plane $\mathcal{P}$ will intersect line k.

[B] Any plane containing line k is perpendicular to plane $\mathcal{P}$.

[C] Any point in plane $\mathcal{P}$ also will be on line k.

[D] All planes that intersect plane $\mathcal{P}$ will pass through T.

5. 060928ge, P.I. G.G.8
In three-dimensional space, two planes are parallel and a third plane intersects both of the parallel planes. The intersection of the planes is a

[A] point [B] pair of intersecting lines

[C] pair of parallel lines [D] plane

6. fall0806ge, P.I. G.G.9
Line k is drawn so that it is perpendicular to two distinct planes, P and R. What must be true about planes P and R?

[A] Planes P and R are perpendicular.

[B] Plane P intersects plane R but is not perpendicular to plane R.

[C] Planes P and R are skew.

[D] Planes P and R are parallel.

[1] B

[2] B

[3] A

[4] B

[5] C

[6] D