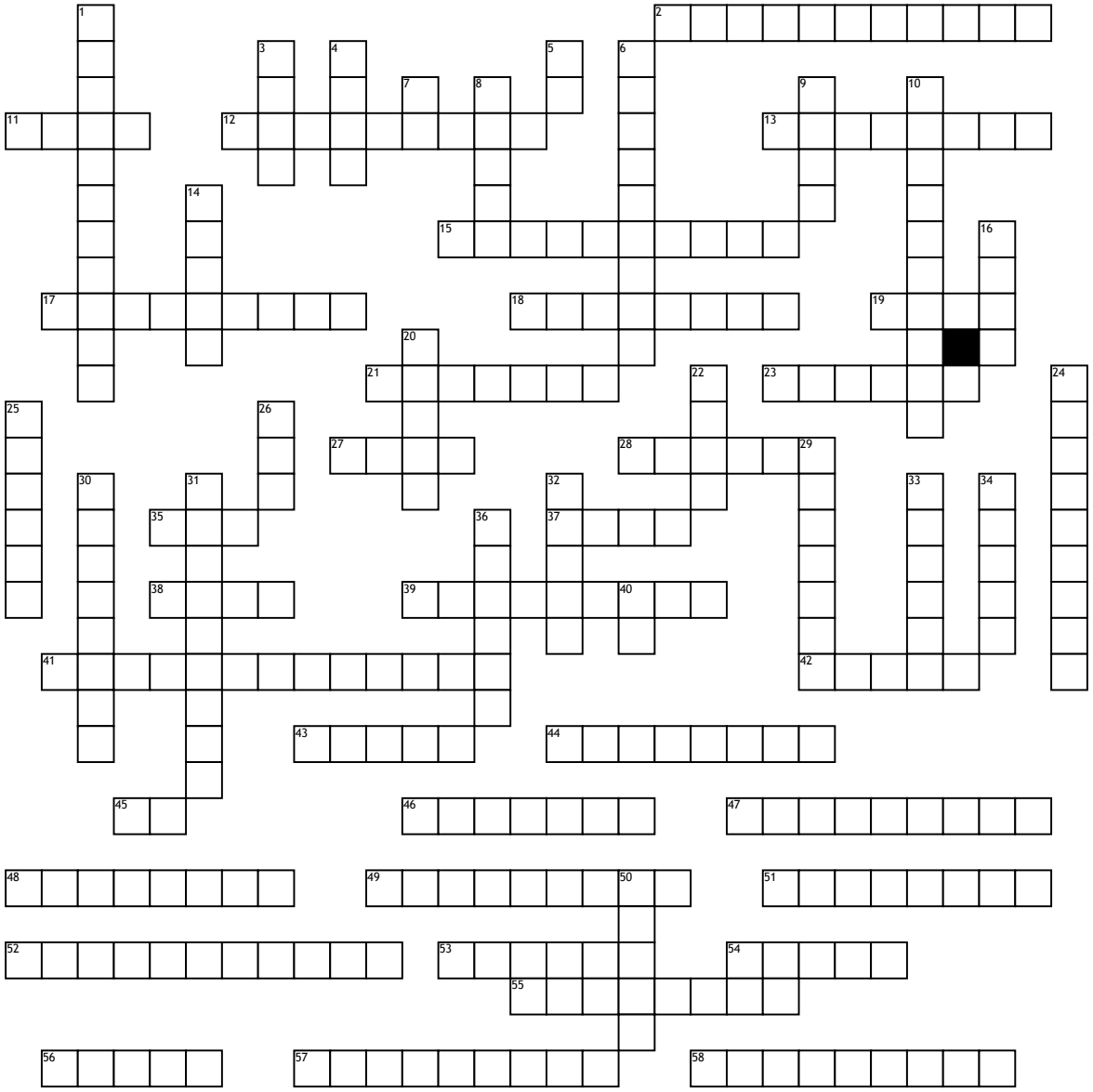
Name: _____ Date: _____ Period: _____

POE - 2.1: Key Term Word Crossword



Across

2. Statically Indeterminate A structure or body which is over-constrained such that there are more unknown supports than there are equations of static

11. Moment of Inertia A mathematical property of a cross section that is concerned with a surface area and how that area is distributed about a centroidal

12. Pinned Support A support that prevents translation in any

13. Vector

15. Cable A strong rope, usually made of metal, designed to have great tensile strength and to be used in

17. Roller Support A support that only prevents a beam from translating in one

18. A condition where there are no net external forces acting upon a particle or rigid body and the body remains at rest or continues at a constant

19. A body subjected to a

21. Planar Truss A truss that lies in a single plane often used to support roofs and

23. Magnitude The absolute value of a

27. Compression Force A body subjected to a

28. Member Slender straight pieces of a truss connected by

35. Method of Joints A method of analysis of trusses which constructs free body diagrams of each joint and determines the forces acting in that joint by considering equilibrium of the joint

37. A physical quantity that has magnitude

38. Fixed Support A support that prevents translation and rotation in a

39. A quantity that has both a magnitude and

41. Statically

42. Joint The connection points of members of a

43. Newton's Second Law The change of motion of the body is proportional to the net force imposed on the body and is in the direction of the net

44. Structure Something made up of interdependent parts in a definite pattern of organization, such as trusses, frames, or

45. Newton's First Law Every body or particle continues at a state of rest or uniform motion in a straight line, unless it is compelled to change that state by forces acting upon

46. Planar Truss A truss that lies in a single plane often used to support roofs and

47. Gusset A plate or bracket for strengthening an angle in

48. Simple Truss A truss composed of triangles, which will retain its shape even when removed from

49. Newton's Third Law If one body exerts a force on a second body, then the second body exerts a force on the first body which is equal in magnitude, opposite in direction, and

51. A truss composed of triangles, which will retain its shape even when removed from

52. Static

53. Magnitude The absolute value of a

54. Newton's Second Law The change of motion of the body is proportional to the net force imposed on the body and is in the direction of the net

55. Static Equilibrium A condition where there are no net external forces acting upon a particle or rigid body and the body remains at rest or continues at a constant

56. Moment The turning effect of a force about a point equal to the magnitude of the force times the perpendicular distance from the point to the line of action from the

57. Newton's Third Law If one body exerts a force on a second body, then the second body exerts a force on the first body which is equal in magnitude, opposite in direction, and

58. Direction The direction of a vector is defined by the angle between a reference axis and the arrow's line of

Down

1. A structure or body which is over-constrained such that there are more unknown supports than there are equations of static

3. Cross-Sectional Area A surface or shape exposed by making a straight cut through something at right angles to the

4. Centroid The geometric center of an

5. Free Body Diagram A diagram used to isolate a body from its environment, showing all external forces acting upon

6. Vector Quantity A quantity that has both a magnitude and

7. Flange A broad ridge or pair of ridges projecting at a right angle from the edge of a structural shape in order to strengthen or stiffen

8. Concurrent Force Systems A force system where all of the forces are applied at a common point on the body or having their lines of action with a common intersection

9. Tension Force A body subjected to a

10. CABLE A strong rope, usually made of metal, designed to have great tensile strength and to be used in

14. Moment The turning effect of a force about a point equal to the magnitude of the force times the perpendicular distance from the point to the line of action from the

16. Scalar A physical quantity that has magnitude

20. Simple

22. Moment of Inertia A mathematical property of a cross section that is concerned with a surface area and how that area is distributed about a centroidal

24. A support that only prevents a beam from translating in one

25. Member Slender straight pieces of a truss connected by

26. Method of Joints A method of analysis of trusses which constructs free body diagrams of each joint and determines the forces acting in that joint by considering equilibrium of the joint

29. Roller

30. Something made up of interdependent parts in a definite pattern of organization, such as trusses, frames, or

31. Pinned Support A support that prevents translation in any

32. Tension

33. Resultant Force The resultant of a system of force is the vector sum of all

34. Sense The sense of a vector is the direction of the vector relative to its path and indicated by the location of the

36. Resultant Force The resultant of a system of force is the vector sum of all

40. Newton's First Law Every body or particle continues at a state of rest or uniform motion in a straight line, unless it is compelled to change that state by forces acting upon

50. The sense of a vector is the direction of the vector relative to its path and indicated by the location of the