socrative
A showbie PRODUCT

Name _____
Date _____

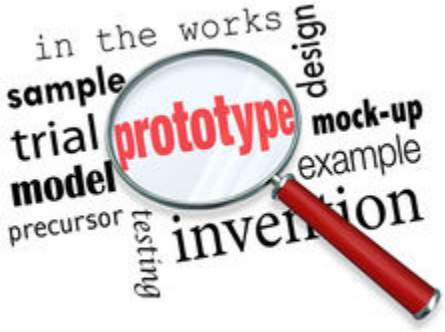
Structural Strength and Stability

Score _____

1. In the Product Life Cycle, all products start with _____ .

(A) A model.
(B) An idea.
(C) Advertising.
(D) Love.

2. What is a Prototype?



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(A) A model.
(B) A fast car.
(C) A full-scale version of the final design car is built with final materials.
(D) The finished product that is mass produced and distributed to stores.

3. The purpose of product testing is _____ .

(A) To make products safer.
(B) To spark ideas for improvement.
(C) To ensure the product works at it is intended.
(D) All of the above.

4. Balancing a book with one hand, the point where you hold it would be called:

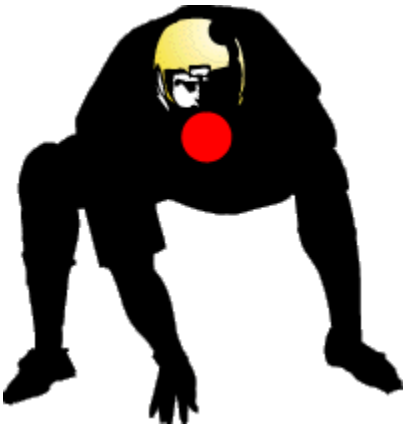
(A) Balancing a book with one hand is impossible!

(B) The plumb line.

(C) The balance point.

(D) The centre of gravity.

5. A football player stands with a wide base and a low centre of gravity. This makes them more _____.



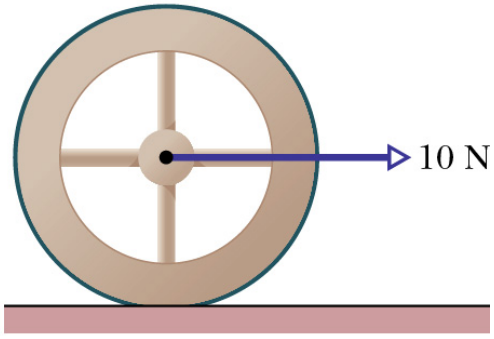
(A) Stable.

(B) Hungry.

(C) Static.

(D) Flexible.

6. _____ is the measure of how strong the force is.



(A) Your imagination.

(B) Tension.

(C) Magnitude.

(D) Torsion.

7. When shoes are designed to not last forever, this is called _____ .

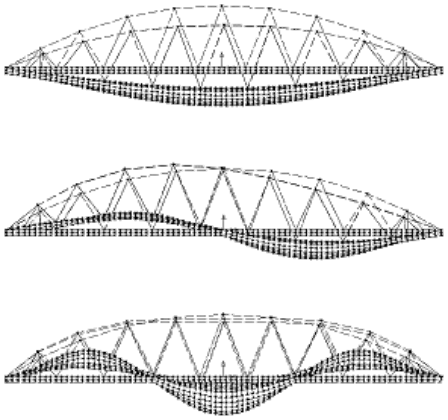
(A) The theory of Wear 'n' Tear.

(B) Poor choice in Materials.

(C) Factory Defect.

(D) Planned Obsolescence.

8. The load on a structure caused by a force other than gravity is the _____ .



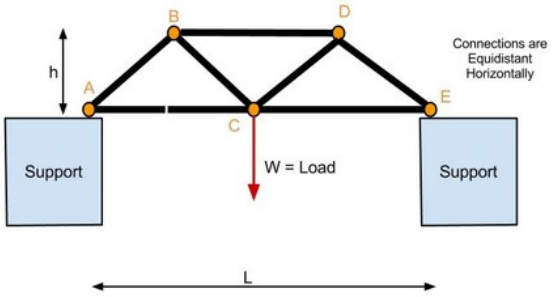
(A) Dead load.

(B) Dynamic load.

(C) Boombastic boys!

(D) Static load.

9.



A load caused by gravity is a _____ .

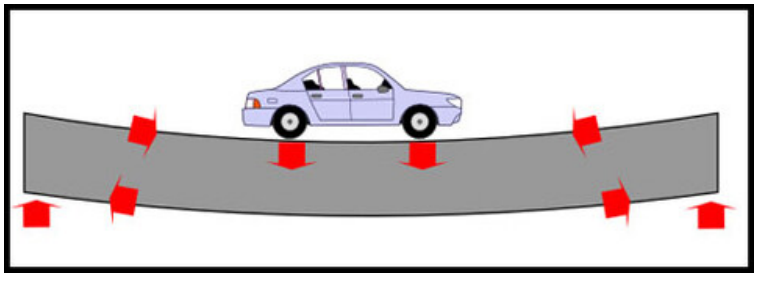
(A) Silly load.

(B) Back pain.

(C) Dead load.

(D) Static load.

10.



The static load caused by gravity acting on the mass of a structure is the _____ .

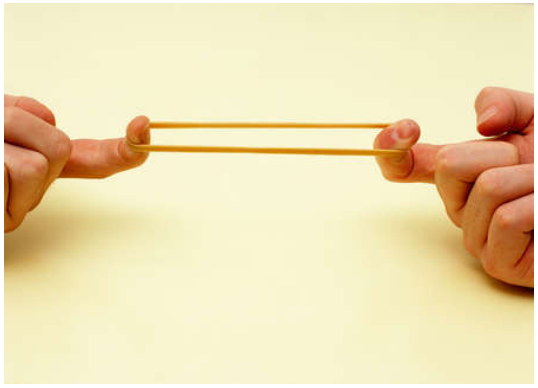
(A) Dead load.

(B) Blueberries.

(C) Shrinking theory.

(D) Static load.

11. The stretching force on an elastic band is _____ .



(A) Pushing.

(B) Torsion.

(C) Tension.

(D) Shearing.

12. Squeezing an orange uses the force of _____ .

(A) The Dark Side.

(B) Compression.

(C) Magnitude.

(D) Tension.

13. Wringing out a wet dish cloth by twisting the fabric creates _____ .

(A) Torsion.

(B) A knot.

(C) A big mess.

(D) Tension.

14. Ripping a phone book into 2 pieces uses this force:

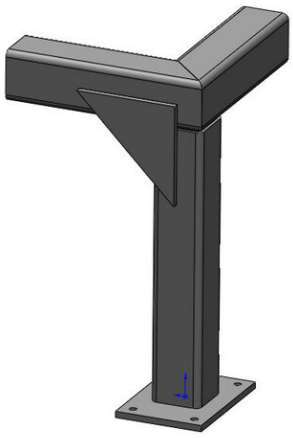
(A) Rapping.

(B) Super strength.

(C) Tension.

(D) Shearing.

15. A small piece of material used to reinforce a seam or joint is a:



(A) Hot glue.

(B) Post.

(C) Gusset.

(D) Frame.

16. A support that resists tension forces is:

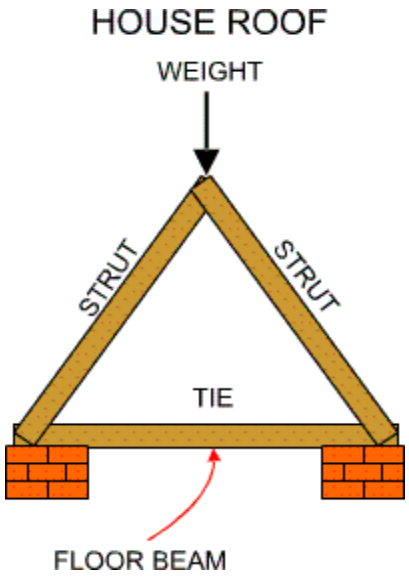
(A) Ties.

(B) Keystone.

(C) Gusset.

(D) A thingy.

17. A STRUT is a support that resists what type of forces?



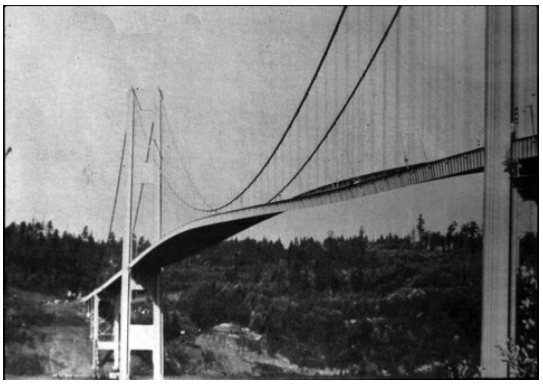
(A) Twisting.

(B) Pulling.

(C) It's a secret.

(D) Compression.

18. On a windy day a bridge starts to vibrate. What type of load is the wind?



(A) Dynamic.

(B) Dead.

(C) Static.

(D) Wind is never a load that acts on structures.

19. What type of load are cars driving on a bridge?

(A) Dead.

(B) Toyota.

(C) Live.

(D) Static.

20. Which of the following is NOT a type of bridge?

(A) Beam.

(B) Cantilever.

(C) Suspension.

(D) Cantiswim.

21.

Which type of bridge is able to have the longest span?

(A) Suspension.

(B) Truss.

(C) Cantilever.

(D) Pontoon.

22.

What type of bridge relies on a system of triangular supports to support its load?

(A) Suspension.

(B) Arch.

(C) Truss.

(D) Beam.

23. What is the section of bridge that lies between two supports?

(A) Gusset.

(B) Span.

(C) Post.

(D) Center of Gravity.

24. A BUCKLE is:

(A) Caused by compression.

(B) Caused by twisting.

(C) The strongest part of a structure.

(D) Another name for Arch Bridge.

25. The purpose of building structures symmetrical is to:

(A) Make them cool.

(B) Distribute loads unequally.

(C) Make structures unstable.

(D) Make structures stable and distribute loads equally.

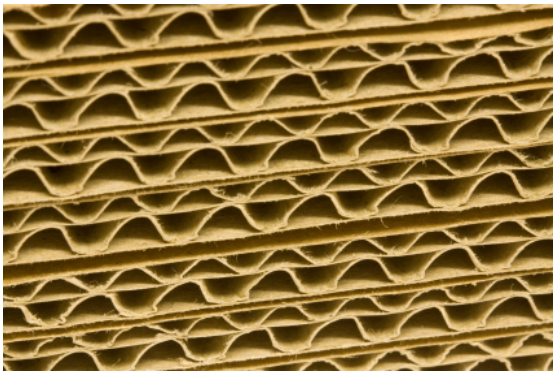
26. The regular pleating and rippling of material used to strengthen cardboard is:

(A) A fastener.

(B) Impossible.

(C) A post.

(D) Corrugation.



27. A structure that is built as a solid surface around a hollow area is a:

(A) Solid structure.

(B) Shell structure.

(C) Not possible.

(D) Structural failure.

28. A device or material that holds two or more pieces of a structure together is a:

(A) Fastener.

(B) Go ask Farmer Brown.

(C) Band-Aid.

(D) Dead Load.

29.

Which type of bridge is the strongest type?

(A) Beam.

(B) Suspension.

(C) Fragile.

(D) Arch.

30. A structural change caused by tension or compression in a beam is:

(A) Bend.

(B) Corrugation.

(C) Span.

(D) Congrats, you're done.