ASVAB-SECTION-3 Q&As

ASVAB Section Three : Mechanical Comprehension

Pass ASVAB ASVAB-SECTION-3 Exam with 100% Guarantee

Free Download Real Questions & Answers **PDF** and **VCE** file from:

https://www.certbus.com/asvab-section-3.html

100% Passing Guarantee
100% Money Back Assurance

Following Questions and Answers are all new published by ASVAB Official Exam Center

- **Instant Download** After Purchase
- **100% Money Back** Guarantee
- **365 Days** Free Update
- **800,000+** Satisfied Customers

QUESTION 1

For two gears to mesh properly, they must _____.

A. rotate at the same speed

B. rotate in the same direction

C. have the same size teeth

D. have the same number of teeth

Correct Answer: C

For two gears to mesh properly, they must have the same size teeth.

Different size gears will, by definition, rotate at different speeds even when their driving axles are moving at

the same speed.

Also, interlocking or meshing gears rotate in opposite directions.

QUESTION 2

What would happen to a balloon full of air if you moved it from above a water surface to ten feet below the water surface?

A. The balloon would explode.

B. The volume of the balloon would decrease.

C. The volume of the balloon would increase.

D. The volume of the balloon would stay the same.

Correct Answer: B

The volume of the balloon would decrease. The pressure of the water would press inward on the balloon and cause it to shrink in volume.

QUESTION 3

If a ramp is 8-feet long and 4-feet high, how much effort is required to move a 400-pound object up the ramp?

A. 35 pounds

B. 150 pounds

C. 800 pounds

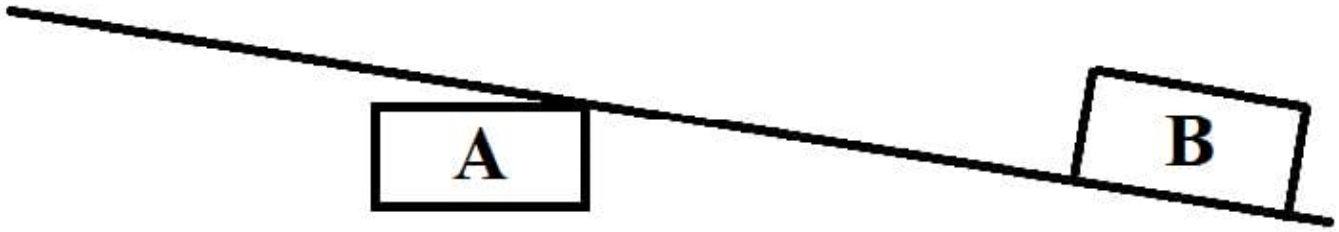
D. 200 pounds

Correct Answer: D

The formula to determine the mechanical advantage of an incline plane is Length of Ramp ÷ Height of Ramp = Weight of Object ÷ Effort. 8 ÷ 4 = 400 ÷ E 8?4 = 400?E 8E = 1,600 8E?8 = 1,600?8 E = 200

QUESTION 4

If Block A, on which the lever is resting, is moved farther away from Block B _____.



A. it will be harder to lift Block B but it will go higher

B. it will be easier to lift Block B and it will go higher

C. it will be harder to lift Block B and it will not be lifted to the same height

D. it will be easier to lift Block B but it will not be lifted as high

Correct Answer: A

It will be harder to lift Block B but it will go higher. If Block A under the beam serving as the lever is moved away from Block B on top of the lever beam, the moment for the force exerted will increase, since the fulcrum is now closer to the force; this will make Block B harder to lift. However, the height to which Block B on the end of the lever beam can be raised increases the further away Block A is moved from Block B.

QUESTION 5

Torsion springs _____.

A. produce a direct pull

B. exert no pull

C. produce a twisting action

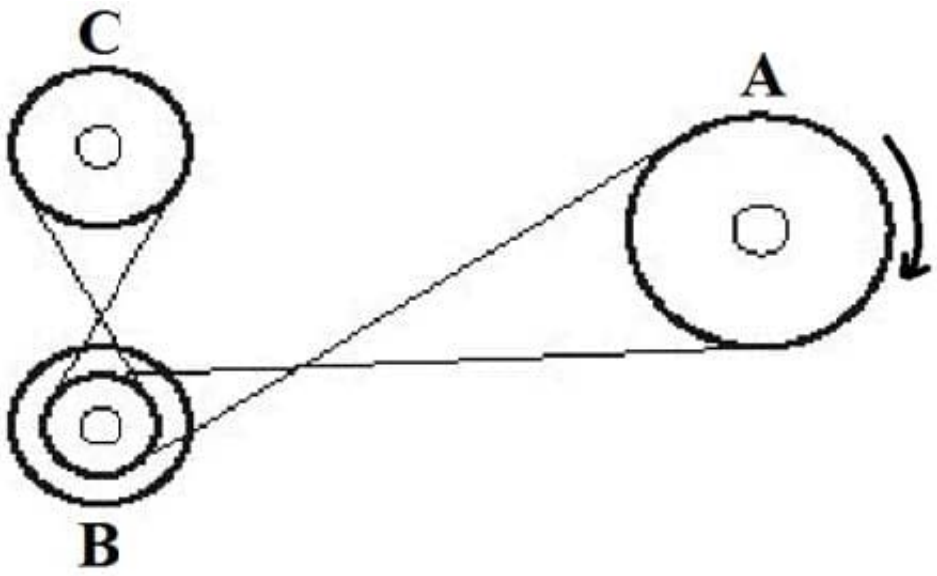
D. coil but do not uncoil

Correct Answer: C

Torsion springs coil or uncoil and produce a twisting action, not a direct pull.

QUESTION 6

In the pulley system shown, which pulley will rotate the fastest?



A. Pulley A

B. Pulley B

C. Pulley C

D. They will all rotate at the same speed.

Correct Answer: B

Pulley B will rotate the fastest. Just like meshing gears, the smaller the pulley in a system, the fester it rotates.

QUESTION 7

The phrase "to adopt power" means _____ when working.

A. to increase speed and efficiency to become your absolute best

B. to use a forceful tone when discussing work with a coworker

C. to focus energy on the lesser objects before moving on to larger instincts

D. to work authoritatively and with a slim, fit physique

Correct Answer: A

QUESTION 8

Which of the following materials serves as a conductor?

A. Metal

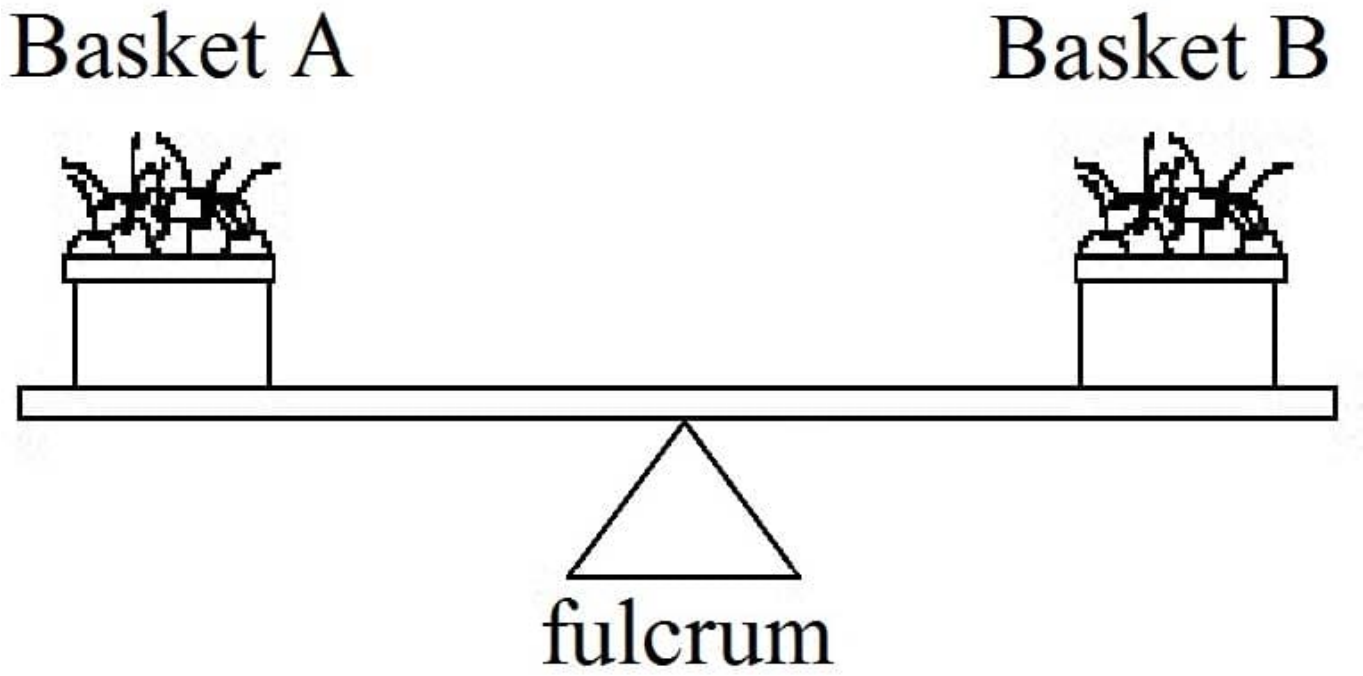
B. Wood

C. Acrylic

D. Paper

Correct Answer: A

QUESTION 9



The baskets are balanced on the arm in the figure above. If cherries are removed from Basket B, to rebalance the arm _____.

A. The fulcrum will have to be moved to the right.

B. Basket B will have to be moved to the right.

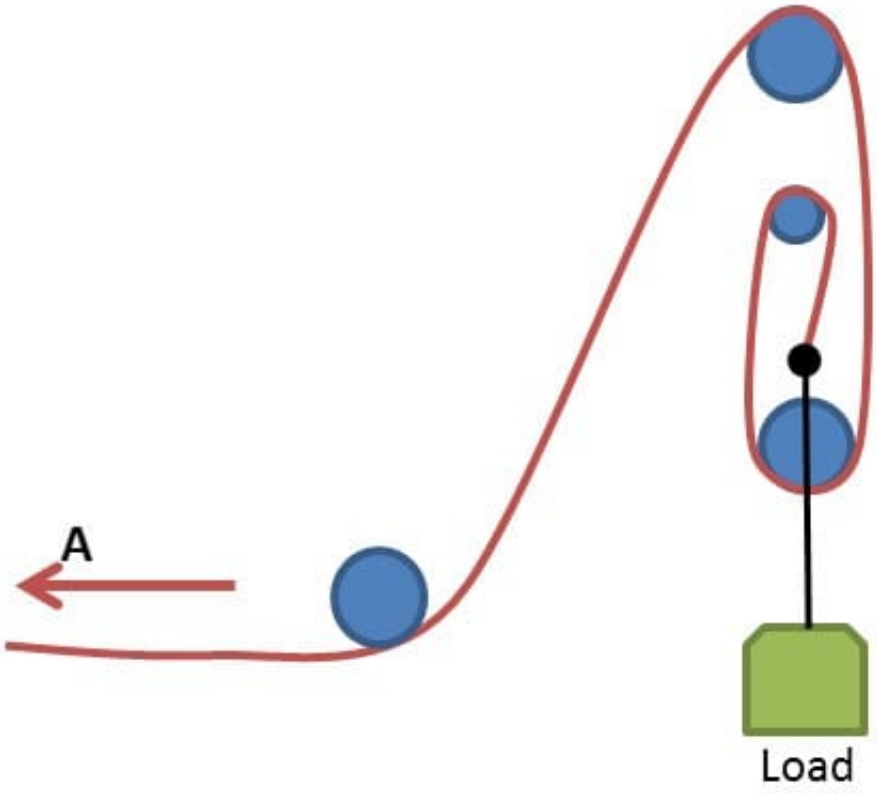
C. Basket A will have to be moved to the left.

D. Basket A will have to be moved to the right.

Correct Answer: D

Moving Basket A to the right counterbalances the loss of cherries from Basket B.

QUESTION 10



Pulling on the rope at point A will lift the load.

How far will you have to pull the rope at point A to lift the load 15 feet?

A. 15 feet

B. 45 feet

C. 30 feet

D. 60 feet

Correct Answer: B

The mechanical advantage of the pulley is 3 since there are three ropes supporting the load. Therefore, the distance at point A needs to 3x or 3 × 15 = 45 ft.

QUESTION 11

A hydraulic jack performs the task of moving objects by _____.

A. utilizing oil; because oil cannot be compressed, pressure is placed upon the oil, resulting in a lifting motion

B. pressing together two interfacing parts to increase height

C. using a pulley system to lift items

D. using a corkscrew-like effect to function

Correct Answer: A

QUESTION 12

Which of the following statements is true for water flowing from a 4-inch pipe to a smaller 2-inch pipe?

A. The same amount of water passes through both the 4-inch pipe and the 2-inch pipe.

B. The pressure is greater in the 2-inch pipe.

C. More water passes through the 4-inch pipe than through the 2-inch pipe.

D. The pressure is lower in the 4-inch pipe.

Correct Answer: A

Water cannot be compressed. Therefore, the same amount of water must be flowing through both the 4inch pipe and the 2-inch pipe.

QUESTION 13

What mechanical motion principle do the brakes in a car or on a bicycle use?

A. friction

B. centrifugal force

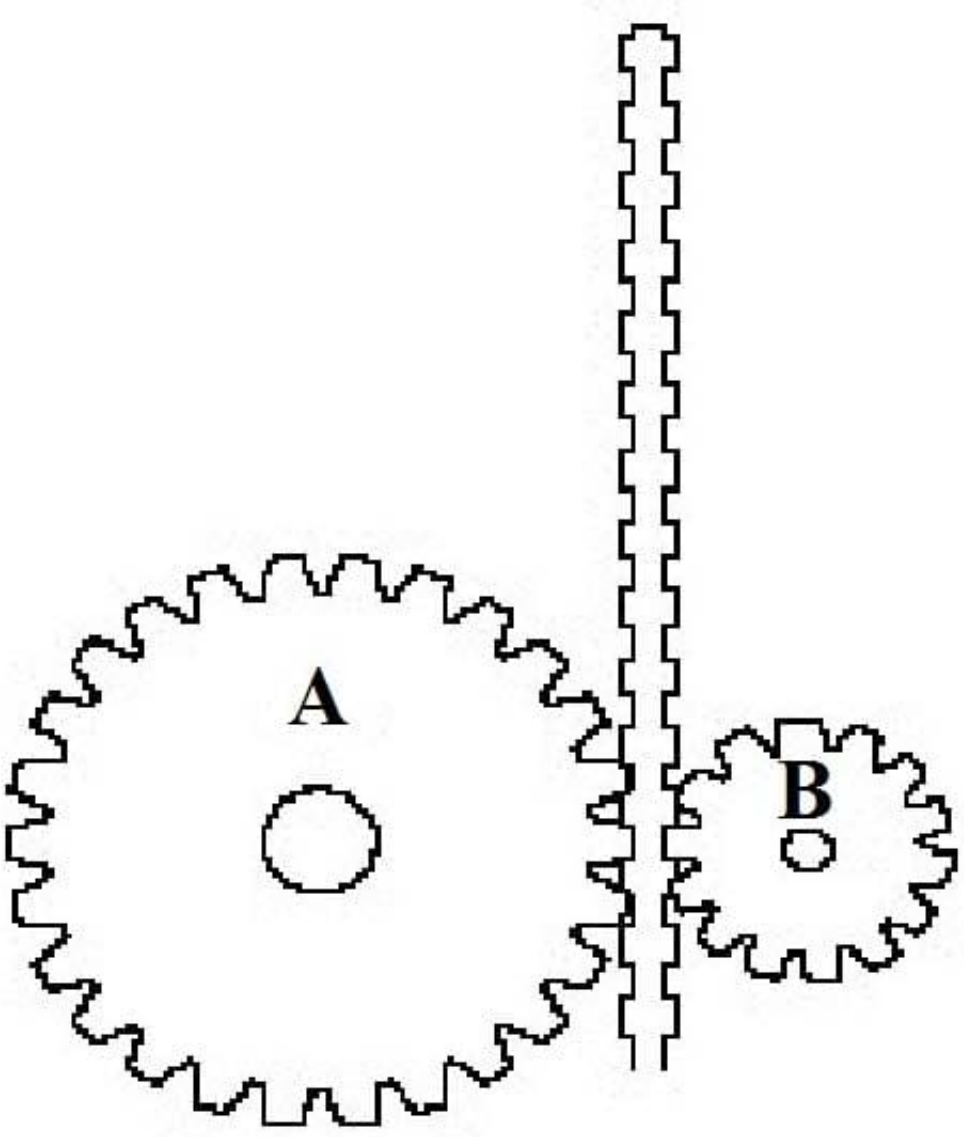
C. momentum

D. acceleration

Correct Answer: A

When the brakes are applied, the brake pads rub on the wheel and the frictional force of this rubbing slows down the vehicle.

QUESTION 14



In the figure above, if the cogs move up the track at the same rate of speed, Cog A will _____.

A. reach the top at the same time as Cog B

B. reach the top after Cog B

C. reach the top before Cog B

D. have greater difficulty staying on track

Correct Answer: C

The larger cog (Cog A) covers a greater linear distance in a given period of time.

QUESTION 15

A compound machine is one in which _____.

A. a battery provides the force

B. one simple machine rotates around the second one

C. two or more simple machines work together

D. the mechanical advantages can be made to balance each other out

Correct Answer: C

A compound machine is one in which two or more simple machines work together.