

Aviation Selection Test Battery (ASTB) Sample Questions

Note: These questions are meant to familiarize a test taker with the types of questions and format that they may encounter on the ASTB and its given sections. In no means is the following an exhaustive list.

Math Skills Test

Directions: Each question below has four possible answer choices. For each question, determine the best answer choice and circle it.

1. $(0.02)^2$

- A) 0.0004
- B) 0.004
- C) 0.04
- D) 0.4

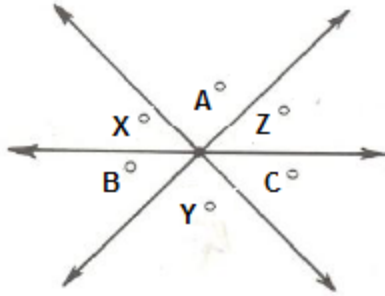
2. A cookie recipe for calls for a $2\frac{1}{2}$ cups of shortening. How many cups of shortening would be needed to make a $\frac{1}{2}$ of the recipe?

- A) $2\frac{1}{4}$
- B) $1\frac{1}{2}$
- C) $1\frac{1}{4}$
- D) $3\frac{1}{2}$

3. The average number of passengers on a bus is 85. If the number of passengers on the first three buses are 84, 89, and 80, what is the number of passengers on the fourth bus?

- A) 86
- B) 81
- C) 83
- D) 87

4. The picture below shows three lines that cross in a point. What is the value of $A + B + C$?



- A) 135
- B) 180
- C) 90
- D) 360

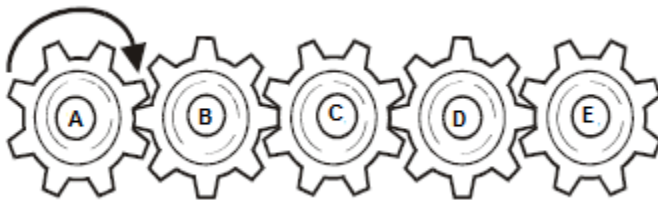
5. If 2 times A exceeds one-half of B by 5, which of the following represents the relationship between A and B ?

- A) $4A + B = 10$
- B) $4A - B = 10$
- C) $2A - B = 5$
- D) $2A + B = 5$

Mechanical Comprehension Test

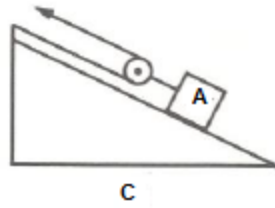
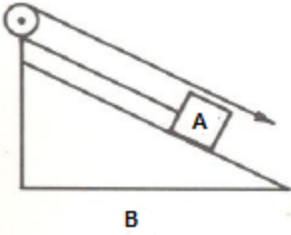
Directions: Each question below has four possible answer choices. For each question, determine the best answer choice and circle it.

1. Below is a picture of a system of gears. All the gears are moving and, the first gear, Gear A, rotates clockwise. Which of the other gears in the system rotate the same way?



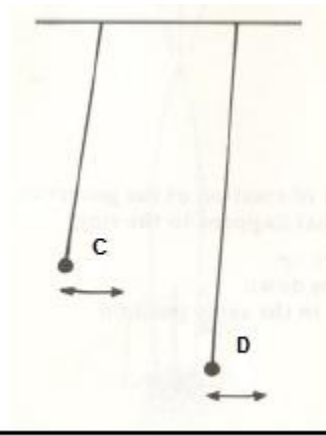
- A) B and D
- B) C and E
- C) B and E
- D) C and D

2. Take note of the below picture, in which case is a smaller amount of force required to move the weight (A) up the ramp?



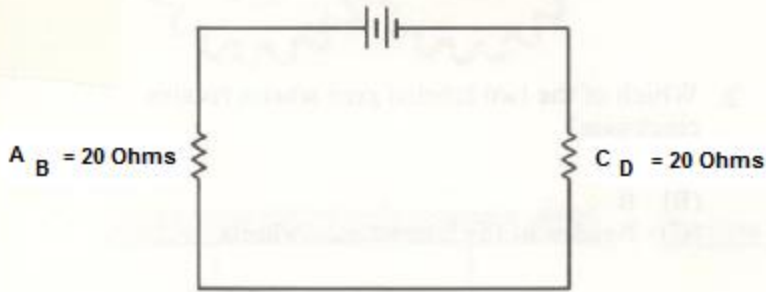
- A) B
- B) The force is the same in both of the above cases
- C) C
- D) There is no way to determine the answer without more information

3. In the picture below, if both pendulums are released from the position shown, which of the pendulums require the lengthiest amount of time to complete one swing?



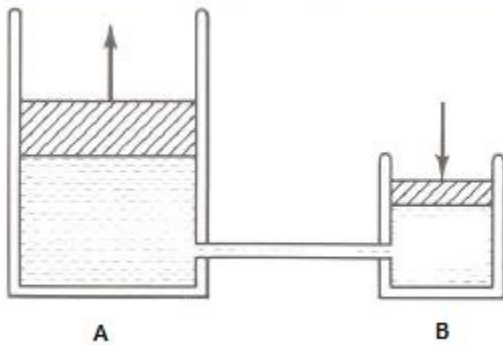
- A) C
- B) The times would be equal
- C) D
- D) There is no way to determine the answer without more information

4. In the picture below, which resistor represents a voltage drop or greater potential difference?



- A) AB
- B) It would be identical across both resistors
- C) CD
- D) There is no way to determine the answer without more information

5. In the picture below, if the piston A has 3 times the surface area of the smaller piston B, how far must the piston B be pushed down to raise the piston A up by 1 inch?



- A) 1/4 inch
- B) 3 inches
- C) 6 inches
- D) 1 ft.

Reading Skills Test

Directions: Below are 5 passages each with four possible answer choices. For the purposes of this test assume each passage is true. For each passage choose the answer that could only be inferred from the passage itself. Each choice may be true and/or reasonable but, only one of them could have resulted exclusively from the material in the passage.

1. Metal or plastic are the two materials commonly used to make paper clips. Rubber is used to cover the metal clips on occasion as they may rust and cause damage to documents.

- A) Documents can be damaged by rust
- B) The modern trend is to cover paper clips in rubber
- C) Paper clips always rust if not covered in rubber
- D) Plastic paper clips never damage documents

2. There was a barely detectable mustard stain on his chest. He was sure it wasn't noticeable, but it still bothered him for the better part of the morning. On the other hand, the large tear he later got on his sleeve didn't bother him in the slightest.

- A) Both the stain and the tear caused him some concern
- B) The stain and the tear did not happen at the same time
- C) The tear in his sleeve didn't bother him because it was hardly noticeable
- D) The tear in his sleeve bothered him more than the mustard stain

3. The PTO will decide the place for each meeting and method of delivery. Meetings will be run in the most economically feasible way. This could include video conferencing or traditional face-to-face meetings.

- A) The PTO prefers face-to-face meetings
- B) Video conferencing is more economically feasible than traditional face-to-face meetings
- C) The PTO decides whether meetings will be face-to-face or through video conferencing
- D) Video conferencing is thought of by some as more effective than traditional face-to-face meetings

4. The DNA of human beings is made up of approximately 3 billion components. Each piece of DNA is described using either A, C, G, or T. Each component is organized in a unique and particular order. This dictates each human beings physical development.

- A) Children and their parents have the exact same DNA
- B) Someone's physical makeup would change depending on how the pieces of that persons DNA was arranged
- C) Everyone has about 3 billion T components in his or her DNA or genetic makeup
- D) Children have less A, C, G, and T components than their parent's DNA

5. In order to become a true hurricane a storm must first pass through a few different stages. The first of these processes is when the eye of the building storm is formed by low pressure air that spins inward cyclonically. After this initial stage and through its intermediate stages the storm is called, first, a tropical depression, then it upgrades to a tropical storm and finally, once intensity has increased so much, a hurricane.

- A) Cyclonic air movement is central in the formation of hurricane force winds

- B) When a storm has reached the tropical depression stage of development, the eye is formed when winds begin moving clockwise
- C) Because the eye of the storm is made up of cyclonic air movement, a hurricane is thought to be the most violent of all natural phenomena
- D) High pressure air systems is what prevents tropical storms from having eyes

Aviation Nautical Information Test

Directions: Each question below has four possible answer choices. For each question, determine the best answer choice and circle it.

1. Which of the following people is known as 'the father' of the United States Navy?
 - A) John Paul Jones
 - B) David G. Farragut
 - C) Luke H. Naismith
 - D) Stan Dewey

2. What is the color of the starboard running light?
 - A) Blue
 - B) Red
 - C) Green
 - D) Yellow

3. When executing an emergency landing what is the main reason to dump fuel from a jet transport aircraft before making the attempt?
 - A) Obtain a steeper glide slope
 - B) Displace the center of gravity
 - C) Reduce the possibility of a fire
 - D) Reduce landing weight

4. Longitude is measured from the _____.
 - A) North Pole
 - B) Prime meridian
 - C) Equator
 - D) South Pole

5. How are the numbers of runways determined?
 - A) Counterclockwise, with 1 at the south
 - B) Depends on the types of aircraft stationed on the runway

- C) Using the first two digits of their compass direction
- D) Due to the width of the runway

Sample Question Answers

Math Skills Test

- 1. A
- 2. C
- 3. D
- 4. B
- 5. B

Mechanical Comprehension Test

- 1. B
- 2. C
- 3. C
- 4. B
- 5. B

Reading Skills Test

- 1. A
- 2. B
- 3. C
- 4. B
- 5. A

Aviation Nautical Information Test

- 1. A
- 2. C
- 3. D
- 4. B
- 5. C