Reading Passage 1

Instructions: Read the passage and answer the questions that follow.

Walls and wall building have played a very important role in Chinese culture. These people, from the dim mists of prehistory have been wall-conscious; from the Neolithic period – when ramparts of pounded earth were used - to the Communist Revolution, walls were an essential part of any village. Not only towns and villages; the houses and the temples within them were somehow walled, and the houses also had no windows overlooking the street, thus giving the feeling of wandering around a huge maze. The name for "city" in Chinese (ch'eng) means wall, and over these walled cities, villages, houses and temples presides the god of walls and mounts, whose duties were, and still are, to protect and be responsible for the welfare of the inhabitants. Thus a great and extremely laborious task such as constructing a wall, which was supposed to run throughout the country, must not have seemed such an absurdity.

However, it is indeed a common mistake to perceive the Great Wall as a single architectural structure, and it would also be erroneous to assume that it was built during a single dynasty. For the building of the wall spanned the various dynasties, and each of these dynasties somehow contributed to the refurbishing and the construction of a wall, whose foundations had been laid many centuries ago. It was during the fourth and third century B.C. that each warring state started building walls to protect their kingdoms, both against one another and against the northern nomads. Especially three of these states: the Ch'in, the Chao and the Yen, corresponding respectively to the modern provinces of Shensi, Shanzi and Hopei, over and above building walls that surrounded their kingdoms, also laid the foundations on which Ch'in Shih Huang Di would build his first continuous Great Wall.

The role that the Great Wall played in the growth of Chinese economy was an important one. Throughout the centuries many settlements were established along the new border. The garrison troops were instructed to reclaim wasteland and to plant crops on it, roads and canals were built, to mention just a few of the works carried out. All these undertakings greatly helped to increase the country's trade and cultural exchanges with many remote areas and also with the southern, central and western parts of Asia – the formation of the Silk Route. Builders, garrisons, artisans, farmers and peasants left behind a trail of objects, including inscribed tablets, household articles, and written work, which have become extremely valuable archaeological evidence to the study of defense institutions of the Great Wall and the everyday life of these people who lived and died along the wall.

The Great Wall of China

Chinese cities resembled a maze…

- ○ because they were walled.

- ○ because the houses have no external windows

- ○ because the name for cities means 'wall'.

- ○ because walls have always been important there.

The Great Wall of China

Constructing a wall that ran the length of the country

- ○ honored the god of wall and mounts

- ○ was an absurdly laborious task

- ○ may have made sense within Chinese culture

- ○ made the country look like a huge maze

The Great Wall of China

The Great Wall of China

- ○ was built in a single dynasty.

- ○ was refurbished in the fourth & third centuries BC.

- ○ used existing foundations.

- ○

The Great Wall of China

Crops were planted

- ○ on a wasteland
- ○ to reclaim wasteland
- ○ on reclaimed wasteland.
- ○ along the canals.

The Great Wall of China

Choose the INCORRECT statement

- ○ Settlements established along the border greatly helped grow Chinese economy.
- ○ The Ch'in, the Chao and the Yen built the wall to protect themselves from the Nomads
- ○ The trail of objects left behind by builders, garrisons and farmer were later considered valuable evidence
- ○ The Great Wall is very complex structure that was built over centuries

Reading Passage 2

Instructions: Read the passage and answer the questions that follow.

It was only minus 28 degrees Celsius when we landed in Irkutsk. But that was cold enough to make breathing an effort - the air felt like ice as it scraped the back of my throat. Five minutes later, I needed a second pair of gloves and pulled my scarf tight over my nose and mouth. I was obviously a beginner at this.

At the petrol station, Mikhail the attendant laughed when we asked if he wasn't freezing. He'd spent the whole day outside with no more than his fur hat and a sheepskin coat for warmth. It was mid-afternoon and icicles were hanging from his moustache like Dracula's fangs. He said he never drank to stay warm - unlike many others.

Vodka

There's a belief in Siberia that enough vodka will insulate you from the cold. It's been proved tragically wrong in the past few weeks. Dozens of bodies of the homeless or men walking drunkenly back from the pub were hauled out of the snowdrifts, frozen or so badly frost-bitten that many will never walk again.

The local hospital in Irkutsk is overwhelmed. Ironically, it's the burns unit that's taken all the frostbite victims - 200 of them in just two weeks in one town. Even here, icicles are hanging down on the inside of the windows, though the heating is on full power. The doctor was too busy performing amputations to talk to us.

Shortages

But we could hear the screams from the operating room. They'd run out of anesthetic after performing 60 amputations that week. The other patients could hear it too, and one girl in the corridor, clinging to her mother for support, was near to tears.

Nastya is only 16. Last week she missed her last bus home, so she walked instead - seven kilometers through the snow, in temperatures of minus 40. She had no gloves. Now her hands are bandaged and hang down uselessly. She'll find out soon if they need to be amputated.

She was far from the worst case. In one bed, Nikolai Dobtsov lay quietly staring at the ceiling. Underneath the sheets, blood was seeping through his bandages, from where his feet and hands had been amputated the day before. He was a truck driver, he explained, with a good job delivering wood - and recently there'd been a lot of demand. So he'd set out to deliver a last load upcountry. The weather forecast - just minus 25 in Irkutsk - seemed to suggest that the journey was safe. It wasn't. His truck broke down miles from anywhere, and for 6 desperate hours he fought to repair the axle. He even greased his hands for protection, and finally managed to get the truck going again. Somehow he found the strength to drive himself back and straight to hospital, but it was already too late.

I asked Nikolai what would happen to him now. He just laughed, and shrugged. Nikolai has no wife or family in Irkutsk - and invalidity benefit is a pittance. Life in an institution may be the best he can hope for, and he'll almost certainly never work again.

Resilience

That incredible stoicism is everywhere. In Irkutsk at least, people seem simply to accept that winter is harsh - and this one especially so. It is without doubt the cruelest Siberian winter in living memory. Yet outdoors, everything appears to function normally - even schools re-opened as the temperature rose briefly to minus 25.

The trams and buses are back on the roads, though everyone drives slowly to avoid skidding on the layers of ice below the grit. The main street bustles with people wrapped in layers against the cold. But even indoors, the chill is inescapable. After her shift as a tram conductor, Natasha Fillipova comes home to a freezing house. She shows us the bedroom - where ice has built up on the inside walls. She scrapes it off with her fingers, but that has little effect. One night, Natasha says, she washed her hair before going to bed. When she woke up, it was frozen solid to the wall. The children are doing their homework in the bathroom - the only room warm enough to sit in. Natasha doesn't want to complain. But she is angry with the state and the architects for building shoddy houses.

The flats here are supposed to withstand up to minus 40 degrees. They don't, and her children are ill with coughs and colds. Natasha's anger is brief, and she seems faintly embarrassed about it. Siberians are used to cold weather, she explains. Here, she tells us, people prefer to rely on themselves - and the knowledge that eventually, spring will come.

Reading Passage

What is implied in the last paragraph?

○

The flats are of poor quality and do not provide enough insulation from the cold weather

○

Natasha is embarrassed about the fact that she can't provide for her children

○

The children's health is negatively affected by the architects' poor work ethics

○

Siberians passively endure through the winter on the thought that spring will come eventually

Reading Passage 2

What do we learn in the opening paragraph?

○

The author isn't accustomed to cold weather

○

The author wished he had another scarf

○

The author arrived by a bus

○

Irkutsk is a city in Western Russia

Reading Passage 2

What is the local theory about vodka?

○

If you drink enough, it will help you get hauled out of snowdrifts

○

If you don't drink, you might never walk again

○

The local hospital is overwhelmed with victims of alcohol poisoning

○

Ingesting a certain amount of vodka would help stay warm

Reading Passage 2

What is implied about the hospital?

○

It is too warm inside

○

They are short on supplies and equipment

○

The staff did not want to talk to journalists

○

All frost-bite victims have to get amputated

Reading Passage 2

What is going to happen to Nastya?

○

She is going to cling to her mother for support

○

She is going to miss the bus

○

She will get her hands amputated

○

The doctors will tell her if her hands would heal on their own

Reading Passage 2

Choose the INCORRECT statement

○

Nikolai used to deliver wood, for which the demand was high

○

Minus 25 Celsius is deemed safe for truck drivers

○

Nikolai laughed and shrugged, implying that he was happy to be admitted at the hospital

○

Greasing one's skin is one way to protect from frostbites

Reading Passage 2

The word 'stoicism' in paragraph 9 can best be replaced with _____

○

altruism

○

ignorance

○

nihilism

○

endurance

Reading Passage 2

Flats in Irkutsk.......

○

don't have separate bathrooms

○

were built by private companies for profit

○

are too cold when the outside temperature reaches below -40C

○

cause health problems

Reading Passage 3

Instructions: Read the passage and answer the questions that follow.

Under an American flag and dark night sky, US President Donald Trump personally welcomed home three American detainees Thursday morning after they were released from North Korea.

The Americans -- Kim Dong Chul, Kim Hak-song and Kim Sang Duk, also known as Tony Kim -- were freed Wednesday while Secretary of State Mike Pompeo was on a visit to the North Korean capital of Pyongyang to discuss President Trump's upcoming summit with North Korean leader Kim Jong Un.

No family members or friends of the three freed Americans were on hand for their arrival in the early hours of Thursday due to protocol reasons, an official told CNN, adding the men had to first debrief intelligence officials before heading to their homes.

Speaking to the media on the tarmac at Joint Base Andrews Air Force Base, Kim Dong Chul said his release felt "like a dream."

"We are very, very happy," said Kim.

President Trump, who was accompanied by his wife Melania, told waiting reporters it was "nice" of the North Korean leader to release the three men ahead of their planned summit.

"Frankly, we didn't think this was going to happen ... it's a very important thing to all of us to be able to get these three great people out" he said.

Trump also said he wanted to pay his "warmest respects" to the family of Otto Warmbier, the American who was released by the North Koreans in a vegetative state, only to die days later.

After their meeting with Trump, the three men were expected to go to the Walter Reed Medical Center in Maryland for further evaluation and medical treatment, according to White House Press Secretary Lindsay Walters.

After addressing the return of the three American detainees, Trump was asked about the prospects of making a deal with the North Korean leader.

"I really think he wants to do something and bring his country into the real world," Trump said.

"I think this will be a very big success. It's never been taken this far, there's never been a relationship like this."

Trump has previously said the release of the three men was part of working towards the denuclearization of the Korean Peninsula.

"Some great things can happen, and that's what we hope," he added.

Vice President Mike Pence and his wife Karen Pence were also on hand to welcome the three men home.

Joking with reporters, Trump said the three men's arrivals had probably broken "the all-time in history television rating for three in the morning."

The US President had earlier said on his Twitter it would be "quite a scene" when the detainees arrived in Washington.

Rumors had swirled for days around the possibility North Korea might release the three Americans ahead of the summit, especially once Pompeo's visit to Pyongyang was revealed.

Trump had demurred on how likely their return was, telling reporters on Tuesday "we'll all soon be finding out." "It would be a great thing if they are," he added.

The three former detainees issued a joint statement on Wednesday thanking Trump for their release. "We would like to express our deep appreciation to the United States government, President Trump, Secretary Pompeo, and the people of the United States for bringing us home," the trio said.

While both South Korea and Japan welcomed the news of the Americans' release, the two countries are still waiting for word on their own citizens held or abducted by North Korea.

In a statement Wednesday, South Korean government spokesman Yoon Young-chan called again for Kim Jong Un to release the six South Koreans still held by the North.

Japanese Prime Minister Shinzo Abe has repeatedly pushed for Trump to raise the issue of repeated abductions of Japanese citizens by North Korea in his upcoming meeting with Kim Jong Un. More than a dozen abductees still remain missing, according to the Japanese government.

Meeting planned for Singapore

CNN reported Wednesday that administration officials have been instructed to move forward with plans to convene that meeting in Singapore, according to two people familiar with the plans.

Trump officials prepare for Singapore summit with North Korea

Trump said on Wednesday he would announce the location and the timing of the summit in three days time, after repeatedly teasing the meeting date had been set. The two leaders are expected to meet sometime in June.

It will be the first meeting ever between a sitting US President and a North Korean leader, with both men meeting to discuss denuclearization of the Korean Peninsula.

Other locations had been under discussion, including Mongolia and the Korean demilitarized zone (DMZ), but experts said Singapore's neutral but opulent setting was likely to work in its favor.

It comes less than two months after a historic summit between Kim Jong Un and South Korean President Moon Jae-in on April 27 in the DMZ, where Kim became the first North Korean leader to set foot in the South since 1953.

The White House Wednesday said they viewed the action to release the Americans as a "gesture of good will."

Reading Passage 3

Who is Tony Kim?

○

Kim Dong Chul

○

Kim Hak-Song

○

Kim Jong Un

○

None of the above

Reading Passage 3

What was Secretary of State doing while the three men were welcomed by President Trump?

○

Accompanying the President in welcoming the released men

○

Speaking to the journalists, giving information on why the released men's family is not allowed on their arrival

○

Was on a diplomatic mission to the Korean peninsula

○

Was reporting on duty at Joint Base Andrews Air Force Base

Reading Passage 3

What does the word 'Frankly' mean in Paragraph 7?

○

Truthfully

○

Belonging to Frank

○

Ambiguously

○

Clearly

Reading Passage 3

According to the article, at what time the event was televised?

○

3:00AM

○

15:00

○

3:00PM

○

Noon

Reading Passage 3

Which of the following is a correct statement

○

Trump gave the press briefing on the location and date of the summit

○

Shinzo Abe is pushing Donald Trump to address the issue of whaling in South China Sea

○

South Korea is yet to have their abductees released

○

The intelligence agency interrogated the released men's family members

Reading Passage 3

Which of the following is not a correct statement?

○

North Korean leader Kim Il-Sung had crossed the DMZ

○

Singapore is most likely to be chosen as the venue for the summit between the two leaders

○

Mongolia is highly unlikely to be chosen as the venue of the summit along with the DMZ

○

The U.S. and North Korea have reached an agreement and the U.S. administration is coming up with plans

Reading Passage 3

What does the word 'opulent' mean?

○

sparse

○

affluent

○

impoverished

○

dense

Reading Passage 3

Based on the content of this article, which of the following is NOT true about the release of the three men?

○

It is seen as a friendly gesture from the North Korean side

○

It means that South Korea and Japan will soon get their own abducted citizens released by North Korea

○

President Trump expected "quite a scene" at the arrival of the detainees

○

It is a solid stepping stone for the much-anticipated Kim-Trump summit

In the following exercises, choose the word that best completes the sentence.

Football is _____ than tennis

○

most popular

○

popularer

○

more popular

○

more

In the following exercises, choose the word that best completes the sentence.

_____ the deepest valley and canyons on the earth.

○

In the Pacific Ocean with

○

In the Pacific Ocean

○

The Pacific Ocean

○

The Pacific Ocean has

In the following exercises, choose the word that best completes the sentence.

In the United States, the participation of females in the labor force _____ from 37 percent in 1965 to 51 percent in 1980.

○

it jumped

○

jump

○

jumped

○

jumping

In the following exercises, choose the word that best completes the sentence.

Most cells in multicellular organisms perform _____ functions.

○

specialize in

○

specialized

○

they specialize

○

specialization

In the following exercises, choose the word that best completes the sentence.

The big island of Hawaii, in the middle of the Pacific Ocean, _____ by five volcanoes.

○

creation

○

it was created

○

created

○

was created

In the following exercises, choose the word that best completes the sentence.

Although knives and forks _____ of prehistoric origin, spoons are relatively new.

○

are

○

they are

○

that are

○

which are

In the following exercises, choose the word that best completes the sentence.

Researchers have long debated about _____ moon Titan contains hydrocarbon oceans or lakes.

○

Saturn's

In the following exercises, choose the word that best completes the sentence.

When _____ the conference?

○

the doctor attended

○

did the doctor attend

○

the doctor will attend

○

the doctor's attendance

In the following exercises, choose the word that best completes the sentence.

The Brooklyn bridge in New York _____ thirteen years to complete.

○

took

○

have taken

○

taken

○

had took

In the following exercises, choose the word that best completes the sentence.

The use of shorthand died out in the Middle Ages because of _____ with witchcraft.

○

the association was imagined

○

associate the imagination

○

imagine association

○

the imagined association

In the following exercises, choose the word that best completes the sentence.

A yacht is steered with a rudder, _____ the flow of water that passes the hull.

○

which deflecting

○

deflected

○

it deflects

○

which deflects

In the following exercises, choose the word that best completes the sentence.

Indigo can be extracted from a plant, and then _____ to dye cloth blue.

○

it

○

using

○

it can be used

○

can be used

In the following exercises, choose the word that best completes the sentence.

Genes control all of the physical _____ we inherit.

○

that traits

○

traits that

○

traits that are

○

traits were

In the following exercises, choose the word that best completes the sentence.

To prevent household fires, all flammable liquids, oily rags, and other _____ materials should be properly disposed of.

○

combustible

○

unctuous

○

restricted

○

extinguishable

In the following exercises, choose the word that best completes the sentence.

Because Jenkins neither_____ nor defends either side in the labor dispute, both parties admired his journalistic _____.

○

criticizes, vitality

○

attacks, neutrality

○

confronts, aptitude

○

dismiss, flair

In the following exercises, choose the word that best completes the sentence.

If it is true that morality cannot exist without religion, then does not the erosion of religion herald the _____ of morality?

○

regulation

○

belief

○

collapse

○

kindle

In the following exercises, choose the word that best completes the sentence.

The stoic former general led his civilian life as he had his military life, with simplicity and _____ dignity.

○

austere

○

informal

○

succinct

○

benevolent

In the following exercises, choose the word that best completes the sentence.

Certain animal behaviors, such as mating rituals, seem to be _____, and therefore _____ external factors such as climate changes, food supply, or the presence of other animals of the same species.

○

innate, unaffected by

○

learned, immune to

○

intricate, beleaguered by

○

specific, confused with

In the following exercises, choose the word that best completes the sentence.

After just one hour of study, Tyler unrealistically expected a _____ rise in his test scores, and was reluctant to work longer hours for steady, _____ score improvements.

○

repetitive, swift

○

sudden, gradual

○

steep, rapid

○

significant, interminable

Select the correct phrase

For the following exercises, part of each sentence or entire sentence is underlined; beneath each sentence are five ways of phrasing the underlined material. Select the best answer among the choices given.

Select the correct phrase

Laura Southworth, a children's author who is beginning to attract the notice of critics and librarians alike, wrote and illustrated her first story 'Tika' and <u>she was only seven years old then.</u>

○

and she was only seven years old then

○

at age seven years old only

○

when she was only seven years old

○

at the time she was only seven

Select the correct phrase

The ancient belief <u>of all matter being in continuous motion</u> seems borne out by modern discoveries about atomic structure.

○

of all matter being in continuous motion

○

is that all matter is in continuous motion

○

that all matter is in continuous motion

○

of all matter that is in continuous motion

Select the correct phrase

When preparing to write a research paper, you should gather information from books, periodicals, and the Internet, <u>and your documenting of sources should be carefully done.</u>

○

and your documenting of sources should be carefully done

○

and document your sources carefully

○

and you should document your careful sources

○

because your sources need to be documented carefully

Select the correct phrase

Weather vanes range in style from the practical to the fanciful, but in the end <u>its purpose is still the same</u>: to point out the direction of the wind.

○

its purpose is still the same

○

their purpose being the same

○

they all share the same purpose

○

the purpose is the same for every on of them

Select the correct phrase

Dr. Kornstein's colleagues considered him not only a great surgeon but also <u>being an inspiring teacher of</u> innovative surgical techniques.

○

being an inspiring teacher of

○

having inspired the teaching of

○

with inspiration teaching

○ an inspiring teacher of

Select the correct phrase

The crash of Mars Climate Orbiter was caused by a lack of training among the members of the navigation team and <u>failing to use metric units</u> in the coding of the software.

○

failing to use metric units

○

a failure to use metric units

○

because of the failure to use metric units

○

by people which failed to use metrics units

Select the correct phrase

Better known for 'The Foreigner', <u>Larry Shue also created other works, such as 'The Nerd', that</u> were of equal quality even though they were less famous.

○

Larry Shue also created other works, such as 'The Nerd', that

○

other works by Larry Shue, such as 'The Nerd'

○

Larry Shue's other works, like 'The Nerd'

○

Larry Shue wrote other stories, like 'The Nerd', that

Grammar

The following exercises test your ability to recognize grammar and usage errors. Select the best answer among the choices given.

Grammar

When my sister and <u>me</u> visited the <u>eulogized</u> city of Troy, we noticed it was much smaller <u>than</u> the epic <u>tales</u> had suggested.

○

me

○

eulogized

○

than

○

tales

Grammar

Of all the jingoists <u>in the country</u>, that <u>politician</u>, known for his fanatical patriotism, <u>appears</u> to be the <u>more</u> dangerous.

○

in the country

○

politician

○

appears

○

more

Grammar

<u>Before</u> handing <u>in her</u> assignment, Michelle <u>checked</u> all of her sources twice; her greatest fear <u>being</u> receiving any grade lower than a B.

○

Before

○

in her

○

checked

○

being

Grammar

Dentists <u>agree</u> that <u>brushing</u> your teeth three times a day <u>promote</u> a good dental health and a <u>more attractive</u> smile.

○

agree

○

brushing

○

promote

○

more attractive

Grammar

I <u>choose</u> to carry my necessities in my pockets, <u>and</u> most other women <u>prefer</u> <u>to use</u> purses.

○

choose

○

and

○

prefer

○ to use

Grammar

<u>Complete exhausted</u> from a hard <u>day at work</u>, Evelyn fell asleep on the bus and, <u>when she finally awoke</u>, found that <u>she had missed</u> her stop.

○

Complete exhausted

○

day at work

○

when she finally awoke

○

she had missed

Grammar

Noelle and Natalie argued <u>at great length</u> about the <u>authenticity</u> of the news; <u>finally</u> Noelle decided that <u>she</u> was right.

○

at great length

○

authenticity

○

finally

○

she

Grammar

Species of monkeys <u>living among</u> a variety of creatures in the rainforest come <u>in contact with</u> predators and prey alike as <u>it swings</u> <u>through</u> the trees.

○

living among

○

in contact with

○

it swings

○

through

Grammar

The pitch of the note that a stringed <u>instrument</u> <u>makes</u> depends on the length, weight, and tension of the string; <u>highest</u> notes <u>are produced by</u> shorter, lighter, or tighter strings.

○

instrument

○

makes

○

highest

○

are produced

Grammar

Despite <u>having had</u> no formal training, Jackie was <u>nonetheless able to master</u> the piano by listening <u>to recordings</u>, reading instructional books, and <u>she practiced</u> on her own.

○

having bad

○

nonetheless able to master

○

to recordings

○

she practiced

Math

You are given a fair ankle bone (шагай). Each ankle bones has four sides: horse, sheep, camel, goat. The probability of rolling any one side is equal.

What is the probability of rolling one horse?

○

25%

○

50%

○

12.5%

○

6%

Math

You are given a fair ankle bone (шагай). Each ankle bones has four sides: horse, sheep, camel, goat. The probability of rolling any one side is equal.

What is the probability that you roll four horses?

- ○

  3.9%

- ○

  2.4%

- ○

  0.39%

- ○

  1.39%

Math

You are given a fair ankle bone (шагай). Each ankle bones has four sides: horse, sheep, camel, goat. The probability of rolling any one side is equal.

If you get two horses, what is the probability that the next two rolls will be horses?

- ○

  6.25%

- ○

  15.4%

- ○

  25.5%

- ○

  2.3%

Math

Using the following equation and information to find r:

$r = Rf + \beta(Rm - Rf)$
$if\ Rf = 0.04,\ \ \beta = 1.2,\ \ Rm = 0.10$

- ○

  0.208

- ○

  0.072

- ○

  0.112

- ○

  0.0744

Math

Using the formula below, what is the closest value to PV?

$$PV = 70 + \frac{1 - 1/(1 + 0.08)^{10}}{0.08} + \frac{1000}{(1 + 0.08)^{10}}$$

- ○

  932.89

- ○

  469.71

- ○

  1428.29

- ○

  1435.00

Math

Solve for x: $-10x + 2 < 20$

- ○

$x > -\dfrac{9}{5}$

○

$x > \dfrac{9}{5}$

○

$x < \dfrac{5}{9}$

○

$x = \dfrac{9}{5}$

Math

Simplify (expand) the expression: $(a - 2b)(2a + b)$

○

$3a^2 - 2ab + 3b^2$

○

$2a^2 + 3ab + 2b^2$

○

$2a^2 - 3ab - 2b^2$

○

$1a^2 - 3ab - 2b^2$

Math

Solve for x: $5(x + 2) - 20 = 10$

○

$x = 15$

○

$x = 10$

○

$x = 8$

○

$x = 4$

Math

Two different telephone carriers offer the following plans that a person is considering. Company A has a monthly fee of $15 and charges of $.02/minute (min) for calls. Company B has monthly fee of $10 and charges $.05/min for calls.

Which equation models the cost of the plan for Company A.

○

Cost=$.05*min+$10

○

Cost=$.02*min+$15

○

Cost=$.05+$10+min

○

Cost=$.02+$15+min

Math

Two different telephone carriers offer the following plans that a person is considering. Company A has a monthly fee of $15 and charges of $.02/minute (min) for calls. Company B has monthly fee of $10 and charges $.05/min for calls.

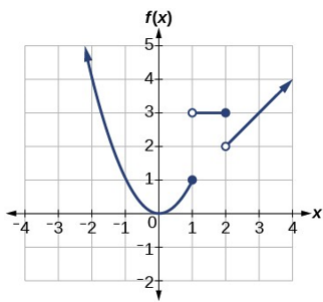Find out how many minutes would make the two plans equal. Round to the nearest minute.

○

400 minutes

○

175 minutes

○

167 minutes

○

They are never equal

Math

Two different telephone carriers offer the following plans that a person is considering. Company A has a monthly fee of $15 and charges of $.02/minute (min) for calls. Company B has monthly fee of $10 and charges $.05/min for calls.

If the person uses an average 400 minutes, which company would have a lower cost plan?

○

Company A

○

Company B
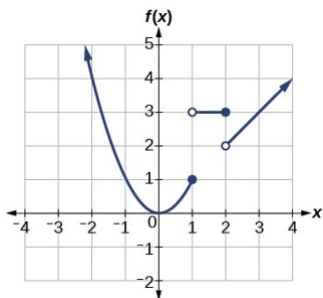
○

They are the same cost

Math

Find f(1)

○

3

○

1

○

-1

○

No answer

Math

Find f(-1)

○

4

○

3

○

1

○

No answer

Math

x	1	2	3	4	5	6	7	8	9
f(x)	5	10	15	20	20	30	40	50	60

What is the average rate of change between f(1) and f(3)?

○

$\frac{1}{5}$

○

10

○

2

○

5

Math

The function for profit is R – C = P. A fast-food restaurant has a cost of production C(x) = 11x + 120 and a revenue function R(x) = 5x. When does the company start to turn a profit (P) (if ever)?
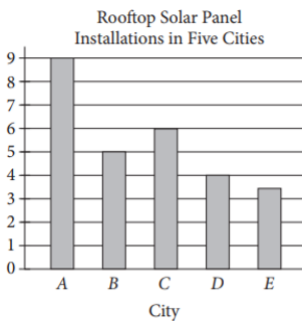
○

100

○

500

○

700

○

Restaurant will never turn a profit

Math

The startup cost for a restaurant is $120,000, and each meal costs $10 for the restaurant to make. If each meal is then sold for $15, after how many meals does the restaurant break even (if ever)?

○

24'000 meals

○

5'000 meals

○

500 meals

○

Company will never break even

Math

Rooftop Solar Panel
Installations in Five Cities

The number of rooftops with solar panel installations in 5 cities is shown in the graph above. If the total number of installations is 27,500, what is an appropriate label for the vertical axis of the graph?
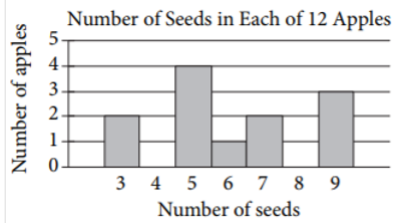
○

Number of installations (in tens)

○

Number of installations (in hundreds)

○

Number of installations (in thousands)

○

Number of installations (in tens of thousands)

Math

Number of Seeds in Each of 12 Apples

Based on the histogram above, of the following, which is closest to the average (arithmetic mean) number of seeds per apple?

○

4

○

5

○

6

○

7

Math

Lengths of Fish (in inches)						
8	9	9	9	10	10	11
11	12	12	12	12	13	13
13	14	14	15	15	16	24

The table above lists the lengths, to the nearest inch, of a random sample of 21 brown bullhead fish. The outlier measurement of 24 inches is an error. Of the mean, median, and range of the values listed, which will change the most if the 24-inch measurement is removed from the data?
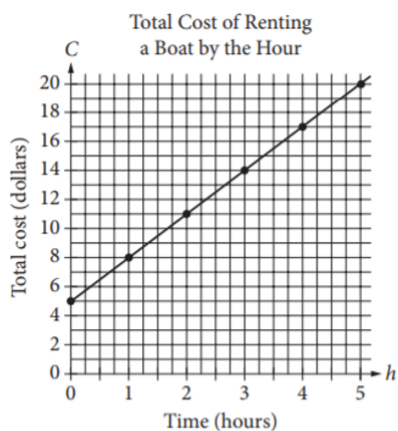
○

Mean

○

Median

○

Range

○

They will all change by the same amount
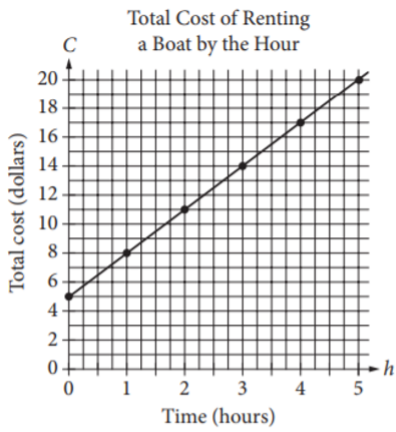
Math

Total Cost of Renting
a Boat by the Hour

The graph above displays the total cost C, in dollars, of renting a boat for h hours.

What does the C-intercept represent in the graph?

○

The initial cost of renting the boat

○

The total number of boats rented

○

The total number of hours the boat is rented

○

The increase in cost to rent the boat for each additional hour

Math

Total Cost of Renting
a Boat by the Hour

The graph above displays the total cost C, in dollars, of renting a boat for h hours.

Which of the following represents the relationship between h and C?

○

$C = 5h$

○

$C = \frac{3}{4}h + 5$

○

$C = 3h + 5$

○ $h = 3c$

Math

Annual Budgets for Different Programs in Kansas, 2007 to 2010

Program	Year			
	2007	2008	2009	2010
Agriculture/natural resources	373,904	358,708	485,807	488,106
Education	2,164,607	2,413,984	2,274,514	3,008,036
General government	14,347,325	12,554,845	10,392,107	14,716,155
Highways and transportation	1,468,482	1,665,636	1,539,480	1,773,893
Human resources	4,051,050	4,099,067	4,618,444	5,921,379
Public safety	263,463	398,326	355,935	464,233

The table above lists the annual budget, in thousands of dollars, for each of six different state programs in Kansas from 2007 to 2010.

Which of the following best approximates the average rate of change in the annual budget for agriculture/natural resources in Kansas from 2008 to 2010?

○

$50,000,000 per year

○

$65,000,000 per year

Math

Annual Budgets for Different Programs in Kansas, 2007 to 2010

Program	Year			
	2007	2008	2009	2010
Agriculture/natural resources	373,904	358,708	485,807	488,106
Education	2,164,607	2,413,984	2,274,514	3,008,036
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Human resources	4,051,050	4,099,067	4,618,444	5,921,379
Public safety	263,463	398,326	355,935	464,233

The table above lists the annual budget, in thousands of dollars, for each of six different state programs in Kansas from 2007 to 2010.

Of the following, which program's ratio of its 2007 budget to its 2010 budget is closest to the human resources program's ratio of its 2007 budget to its 2010 budget?

○

Agriculture/natural resources

○

Education

○

Highways and transportation

○

Public safety

Math

Annual Budgets for Different Programs in Kansas, 2007 to 2010

Program	Year			
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Public safety	263,463	398,326	355,935	464,233

The table above lists the annual budget, in thousands of dollars, for each of six different state programs in Kansas from 2007 to 2010.

The total budget for all programs in 2010 was $26,371,802,000. Approximately what percentage of the total budget was public safety?
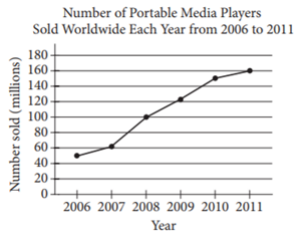
○

2%

○

5%

○

10%

○

15%

Math

Katarina is a botanist studying the production of pears by two types of pear trees. She noticed that Type A trees produced 20 percent more pears than Type B trees did. Based on Katarina's observation, if the Type A trees produced 144 pears, how many pears did the Type B trees produce?

○

115

○

120

○

124

○

173

Math

Number of Portable Media Players
Sold Worldwide Each Year from 2006 to 2011

According to the line graph above, the number of portable media players sold in 2008 is what fraction of the number sold in 2011?

○

5/8

○

10/27

○

8/5

○

1/4

Math

Jessica opened a bank account that earns 2 percent interest compounded annually. Her initial deposit was $100, and she uses the expression $100(x)^t$ to find the value of the account after t years

What is the value of x?

○

0.02

○

0.20

○

1.02

○

2.00

Math

Jessica's friend Tyshaun found an account that earns 2.5 percent interest compounded annually. Tyshaun made an initial deposit of $100 into this account at the same time Jessica made a deposit of $100 into her account. After 10 years, how much more money will Tyshaun's initial deposit have earned than Jessica's initial deposit? (Round your answer to the nearest dollar?)

○

$25

○

$125

○

$3

○

$28

Submit