**f QUIZ #5**

*Share Questions + Answers (Only if 100% Sure). Discuss Questions/Answers. Remember We Get 3 Attempts So We Can Help Each Other Score 20/20 By Attempt Three!!*

PLEASE HELP CONFIRM THE ANSWERS WE’RE UNSURE OF IN RED, SOS WE ALL NEED TO ACE LAST QUIZ

Hey everyone, I have a question: So since there were no new podcasts released will this quiz

only be on the class material? And does anyone know if it includes stuff from the earlier units?

Pretty sure “urban and environmental management” podcast is included

Theres a section on avenue called quiz coverage that says what on each quiz. **Thanks :D**

* **Before every quiz it says what it covers^^**

They forgot to say this video called ‘Saved by the Sun’ is included - Control F using the transcript here: <http://www.pbs.org/wgbh/nova/tech/saved-by-the-sun.html>

PORTLAND , OR had used green roofs to deal with

1. Pollution
2. Storm water runoff
3. Urban island heat effect
4. Both b and c

**PLEASE HELP…….**

**1. According to the video e2 Transport…. What did Portland choose as the underlying principle to its future urban development?**

**Accessibility** - Correct answer

What natural product can be used to neutralize acidic soil?????

Epsom salts

Powdered Gypsom

Crushed limestone <- I choose this ← i think its this too Got this one right

**All the above ?**

2. Industrial clean up can be costly, like the 19 M bill to remove \_\_\_ from beneath one of block of Kitchener, ON:

1. **Coal tar**

3. The world’s urban populations are \_\_\_

1. Growing at about the same rate as the rural populations
2. **Growing faster than the population as a whole**
3. Shrinking, compared to rural populations
4. Growing most rapidly in the developed nations

4. The urban heat island effect can be reduced by \_\_

1. The shade of vegetation
2. The use of light coloured surfaces
3. Green roof technology
4. **All of the above**

5. Consequences of urban areas on the hydrological cycle include \_\_\_

1. Surface flooding
2. Polluted water
3. Reduced recharge of aquifers
4. **All of the above**

6. events, such as \_\_\_, have highlighted the vulnerability of urban infrastructure to hazards

7. The common denominators of livable cities include

1. Low population density, concentrated housing, few stores and business, wide highways, and abundant parking
2. High population density, concentrated housing, limited business and stores, and a car-centered approach that makes driving easy
3. Low population density, heterogeneous mixtures of residences and businesses, wife highways and abundant parking for efficient transportation
4. High population density and heterogeneous mixtures of residences and businesses that encourage people to socially interact ← this one??? YES GOT PERFECT

8. Air quality in Canada is monitored by measuring \_\_\_.

1. Ground level ozone
2. Fine particulate matter
3. Ozone levels
4. **Both a and b**

9. The urban heat island effect causes what kind of temperature change?

1. **2 - 6 º C increase**
2. 10-15 increase
3. 2-6 decrease
4. 1-3 increase

10. Finding sites for waste disposal can be challenging because of \_\_\_\_.

1. **LULUs and NIMBY**

11. According to the video e2 Transport - Portland: A Sense of Place, what prompted the state of Oregon to force cities to define limited urban boundaries?

1. Collective will of the people
2. Rising costs of infrastructure
3. **Protection of agricultural land ← this one??? Please confirm - yes got perfect**
4. Implementation of smart growth principles

12. As an urban region experiences urban sprawl, the**Number of shopping malls increases**

13. According to *Saved by the Sun,* outs occur in the United States

1. During cold spells
2. On weekends
3. At night
4. **During heatwaves**

14. Each of these strategies outlines the steps Whistler has recently undertaken measure to achieve greater energy efficiency, with the exception of \_\_\_\_.

1. Piped propane
2. A local tramway
3. A comprehensive transportation strategy ← this one???
4. Municipal vehicle fuel efficiency

**Any one confirm ??????????**

**HELP PLEASE**

15. According to the video e2 Transport - Portland: A Sense of Place, the protection of what type of land surrounding the city lead to an intensification of development and revitalization of the urban core?

1. Industrial zones
2. Lakes and streams
3. **Farmland**
4. Suburbs

16. LEED provides benchmarks for performances related to aspects of human and environmental health including \_\_\_.

1. Water savings
2. Indoor environmental quality
3. Emissions targets
4. **Both a and b**

17. One of the most common ways that modern cities have become more livable is by

1. Eliminating all city taxes and instead relying upon federal aid
2. **Shifting emphasis from personal automobiles to public transportation**
3. Requiring all citizens to perform monthly community service
4. Decreasing the density of the population throughout the cities

18. According to the video e2 Transport - Portland: A Sense of Place, which of the following is a concern that the growth and redevelopment of Portland raises?

1. Industrialization
2. Tax increases
3. Suburbanization
4. **Gentrification**

19. Any consideration of the true costs of sprawl must include \_\_\_.raises

1. Increased use of pesticides
2. The problems of decreased water and energy consumption
3. Increased use of fossil fuels **>???**
4. The restoration of natural areas to inner cities

20. According to the video e2 Transport - Portland: A Sense of Place, the pearl district in Portland used to be occupied by what?

1. A shipyard
2. **A brownfield site - it’s this, i just watched the video again confirmed**
3. A large factory
4. A large shopping centre

21. Which of the following occurred as a result of environmental remediation activities in Sudbury?

1. **Herbaceous and woody tree species increased**
2. The number of insects decrecCFxased
3. The pH of the soil decreased
4. All of the above

22. According to the video Saved by the Sun, which of the following is the motivation for homeowners in the US to convert solar energy?

1. **Climate change**

23. Buildings in North America release more than \_\_\_\_ per cent of the continents total waste, annually

1. **35**

24. The most important limiting factor for most commuters is

1. **The time it takes to drive to their job**

25. The footprint of a large city is \_\_\_ than/as the surrounding rural area

1. **Much higher**

26. The most successful of urban plans that have made cities more livable have designed space to be centered on

1. **The movements and interactions of people confirmed, got this right**

27. What was the main challenge the town of Whistler faced when it implemented its new energy management plan?

**Energy use in tourism destinations is far greater than similar sized communities, as much of the energy consumption occurs outside the city**

28. What percentage of Canadians are living in urban centers?

**80%**

29. What Canadian city diverts almost 70% of their wastes away from landfills?

**Markham**

30. \_\_\_\_\_ are a major contributor to greenhouse gas emissions in cities.

1. The production of hydroelectric energy
2. Private vehicles - i think its this, can someone confirm please?
3. Buses
4. The burning of fossil fuels at mines

31. According to the video e2 transport-portland.. How did portland fund the development of the light rail system?

**It diverted funds that had originally been allocated for highway expansion**

32. The majority of Canadians live in which four main areas?

1. GTA, montreal-maritimes, lower mainland BC, calgary-edmonton corridor
2. Golden horseshoe region, montreal area, lower mainland BC, calgary-edmonton corridor > this I think?
3. **Golden horseshoe region, montreal- quebec corridor, lower mainland BC, maritimes**
4. GTA, montreal area, lower mainland BC, calgary-edmonton corridor

33. Brownfield sites largely arise from areas…

**Legacy of abandoned industrial sites**

34. Overlapping jurisdictions can cause problems when \_\_\_\_\_

1. Some cities produce waste that is carried downstream to another jurisdiction
2. Regional authorities don’t want to give up jurisdiction
3. Political boundaries conflict with natural boundaries
4. **All of the above?**

35. One of the things that contributes to sprawl is \_\_\_\_\_

Zoning

36. Worldwide, the fastest growing cities today are \_\_\_\_

Cities in developing nations including cairo, egypt and mumbai, india

37. Urban sprawl typically results in

**Increased commuting distances**

38. An urban growth boundary (UGB) is intended to

1. Enforce certain restrictions within neighborhoods
2. **Provide guidelines for city development to seperate areas desired to be urban from areas desired to be rural -**
3. Ensure that businesses do not locate in residental areas
4. Help an area retain its distincitive character

Can someone confirm if B is correct

**39. People who seek to improve resource sustainability of our cities urge us to \_\_\_\_?????**

1. **Use renewable energy sources and recycle materials**

40. What are the reasons for the urban heat island effect?

**A and B (increased travel+ less albedo directly reflected bc of tall buildings)**

41. The Sudbury strategy sought to address \_\_\_ of mine remediation

**All of the above**

42. According to vide e2 transport..what type of transportation solution was used in the city to stimulate investment and revitilized the urban center?

**Street cars/ light rail**

43. The city of Sudbury, Ontario, was a major producer of

1. **Nickel**

44. Which of these problems is not a problem associated with urban sprawl?

**High density housing over a large area**

45. LUST stands for \_\_\_\_.

1. **leaking underground storage tanks**

46. What drives the move to the suburbs from cities?

**Desire to live in less stressful, more peaceful park-like conditions**

**47. What is the most successful Canadian city at waste management (70% waste is diverted from landfill)**

* **Markham- this is the answer**

48. LULU stand for and what would be an example of it

**Locally unwanted land uses e.g. landfill**

The greatest general problem with suburbs is \_\_\_\_

**That they spread environmental impact over a larger area ??? is this the answer? ye**

Urban sprawl has resulted in

1. Decreased reliance on fossil fuels
2. Decreased production of greenhouse gases
3. Increased dependence on family farms for food
4. **Wildlife habitat fragmentation ???? this? I think so > ya**

Urban form is

* **Type and distribution of infrastructure in communities** <- CORRECT, GOT PERFECT. TY DUDE!!!

Almost \_\_\_\_of all waste in Canada is from\_\_\_\_\_

**One third, packaging**

Do you guys know the one with the picture, “ this region just outside of las vegas illustrate” ?

**urban sprawl - yep**

**Most of the successful urban plans that have made cities more livable have designed space to be centered on CAN SOMEONE CONFIRM THIS QUESTION PLEASE**

**I think a is the answer. Thanks so much!**

* **Movement and interaction of people - Think this is correct**
* **Oceans as a common source for water and transportation**
* **Efficient automobile traffic - OR THIS**
* **Housing and places for people to park their cars**

***WHAT DOES CBIP STAND FOR?***

***COMMERCIAL BUILDING INITIATIVE PROGRAM :) !!!***

***The urban heat island effect causes what kind of temperature increase***

* ***2-6C Increase > this***

***The urban island heat effect can result in city temperatures that are \_\_\_ greater than those in surrounding areas***

* ***2-5c***
* ***1-3c***
* ***2-4c***
* ***1-10c***

***WHAT IS THE DIFF BETWEEN THESE Q’S***

***SOME HELP WITH THIS!!!!***

***What are the reasons for the urban island heat effect***

* ***Increased travel***
* ***Less albedo directly reflected bc of tall buildings***
* ***Lower population in urban centers***
* ***All of the above***
* ***A and b***

***What is the answer to thss ^^^^^^***

***I dont know for sure buy I would say a and b…***

***Pretty sure its a and b***

***Was thinking just B but probs a and b is right i guess***

***I think a would also be right because of the combustion and ghg emissions***

***The re-greening of sudbury involved***

* ***Great deal of cooperation among scientists, planners, students, government ministries and public***

***HELP PLS***

In Sudbury, \_\_\_\_\_\_\_ volunteers planted \_\_\_\_\_\_\_ trees through the Land Reclamation Program.

1. 1,000 10,000
2. 1,400, 12,000
3. *8,500, 289,000 -- might be this*
4. 3,400, 394,000

Overlapping jurisdictions can cause problems when

* Some cities produce waste that is carried downstream to another jurisdiction
* Regional authorities dont want to give up jurisdiction
* Political boundaries conflict with natural boundaries
* **All of the above -- this is what i think??????**

Greenfields are \_\_\_

**Undeveloped land-**---- maybe ?? yes

While the concentration of many common air pollutants are decreasing in Canadian cities, which of the following has been increasing since the 1980s?

**Ground level ozone**

Fill in the blanks in the following sentence: On average in Canada, homes are now \_\_\_\_\_ from \_\_\_\_\_ centres with increased \_\_\_\_\_ time, \_\_\_\_\_\_\_ infrastructure now requires and overall the system is \_\_\_\_ efficient.

1. Closer, rural, working, decreased, more
2. Further, urban, commuting, increased, less - maybeee????
3. Further, city, construction, less, more
4. Nearer, urban, commuting, decreased, less

\_\_\_\_\_\_ have all reappeared in the Sudbury remediated land region

**Elk, peregrine falcon, trumpeter swans**

The urban heat island effect can result in city temperatures that are \_\_\_\_\_\_\_ greater than those in surrounding areas.

1. 2 to 5 degrees Celsius
2. 1 to 3 degrees Celsius
3. 2 to 4 degrees Celsius
4. 1 to 10 degrees Celsius

Which one of the following permitted the widespread move into the suburbs after WW II?

* **Increased ownership of automobiles -**this is correct, got perfect

A recent study concluded that up to 25,000 premature deaths in canada are due to\_\_\_

1. Exposure to pesticides
2. **Exposure to air pollution** [**→ Not sure this is a right. Recent study said 7700 due to air pollution.**](http://www.cbc.ca/news/health/air-pollution-results-in-7-700-premature-deaths-in-canada-each-year-report-says-1.4140794)
3. Exposure to hazardous chemicals
4. All of the above

**HELP PLEASEEE PLEASE → Guessing (B)**

**http://www.cbc.ca/news/health/air-pollution-results-in-7-700-premature-deaths-in-canada-each-year-report-says-1.4140794**

Fill in the blanks in the following sentence: On average in Canada, homes are now *\_\_\_* from *\_\_\_* centres with increased *\_\_\_* time, *\_\_\_\_\_* infrastructure now requires and overall the system is *\_\_* efficient. HOMES ARE FURTHER … … … LESS EFFICIENT

When generally comparing life in suburban sprawl and life in inner cities… **WALK MORE**

Almost ⅓ of waste in Canada is from packaging…

When people consider urban sprawl, they’ll be surprised to find… **Residential density is high**

the move to curb urban sprawl is also a way to: **decrease the pop. of large cities.**

Recent events…

A & b (peru + vancouver)

Recent events such as **HURRICANE KATRINA** have highlighted the…

Urban sprawl was made possible by… **AUTOMOBILES**

**As of 2008 how many people live in urban areas… 3.3 billion**

What is the current trend in public transportation use?... **Overall ridership is up…**

**Question 1** (1 point)

The urban heat island effect causes what kind of temperature change?

Question 1 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | 10-15 o C increase | |
|  | |  |  | | --- | --- | | b) | 1 – 3 o C increase | |
|  | |  |  | | --- | --- | | c) | **2 – 6 o C increase** | |
|  | |  |  | | --- | --- | | d) | 2 – 6 o C decrease | |

Save

**Question 2** (1 point)

The Sudbury strategy sought to address \_\_\_\_\_\_\_\_ of mine remidiation.

Question 2 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | social aspects | |
|  | |  |  | | --- | --- | | b) | physical aspects | |
|  | |  |  | | --- | --- | | c) | economic aspects | |
|  | |  |  | | --- | --- | | d) | **All of the above.** | |

**Question 3** (1 point)

What is the most successful Canadian city at waste management (70% of their waste is diverted from landfill)?

Question 3 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | **Markham** | |
|  | |  |  | | --- | --- | | b) | Victoria | |
|  | |  |  | | --- | --- | | c) | Hamilton | |
|  | |  |  | | --- | --- | | d) | Charlottetown | |

**Question 4** (1 point)

Fill in the blanks in the following sentence: On average in Canada, homes are now \_\_\_\_\_\_ from \_\_\_\_\_\_\_ centres with increased \_\_\_\_\_\_\_\_\_\_ time, \_\_\_\_\_\_\_\_\_\_ infrastructure now required and overall the system is \_\_\_\_ efficient.

Question 4 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | Nearer, urban, commuting, decreased, less | |
|  | |  |  | | --- | --- | | b) | **Further, urban, commuting, increased, less** | |
|  | |  |  | | --- | --- | | c) | Closer, rural, working, decreased, more | |
|  | |  |  | | --- | --- | | d) | Further, city, construction, less, more | |

Save

**Question 5** (1 point)

A recent study concluded that up to 25,000 premature deaths in Canada are due to \_\_\_\_\_\_\_\_.

Question 5 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | exposure to pesticides | |
|  | |  |  | | --- | --- | | b) | exposure to air pollution | |
|  | |  |  | | --- | --- | | c) | **exposure to hazardous chemicals** | |
|  | |  |  | | --- | --- | | d) | All of the above. | |

**Question 6** (1 point)

According to *Saved by the Sun*, which of the following is the motivation for home owners in the United States to convert to solar energy?

Question 6 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | Air pollution | |
|  | |  |  | | --- | --- | | b) | Tax benefits | |
|  | |  |  | | --- | --- | | c) | **Climate change** | |
|  | |  |  | | --- | --- | | d) | Energy self-reliance | |

Save

**Question 7** (1 point)

According to the video *e2 Transport – Portland: A Sense of Place*, the protection of what type of land surrounding the city lead to an intensification of development and revitalization of the urban core?

Question 7 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | Industrial zones | |
|  | |  |  | | --- | --- | | b) | **Farmland** | |
|  | |  |  | | --- | --- | | c) | Lakes and streams | |
|  | |  |  | | --- | --- | | d) | Suburbs | |

**Question 8** (1 point)

According to the video *e2 Transport* – *Portland: A Sense of Place*, how did Portland fund the development of the light rail system?

Question 8 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | It lobbied corporations for more money | |
|  | |  |  | | --- | --- | | b) | **It diverted funds that had been originally allocated for highway expansion** | |
|  | |  |  | | --- | --- | | c) | It diverted funds that had been originally allocated for industrial expansion | |
|  | |  |  | | --- | --- | | d) | It increased municipal taxes | |

Save

**Question 9** (1 point)

According to the video *e2 Transport* – *Portland: A Sense of Place*, what prompted the state of Oregon to force cities to define limited urban boundaries?

Question 9 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | Rising costs of infrastructure | |
|  | |  |  | | --- | --- | | b) | **Protection of agricultural land** | |
|  | |  |  | | --- | --- | | c) | Collective will of the people | |
|  | |  |  | | --- | --- | | d) | Implementation of smart growth principles | |

Save

**Question 10** (1 point)

According to the video *e2 Transport* – *Portland: A Sense of Place*, what type of transportation solution was used in the city to stimulate investment and revitalized the urban centre.

Question 10 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | Subways | |
|  | |  |  | | --- | --- | | b) | **Street cars / light rail** | |
|  | |  |  | | --- | --- | | c) | Roundabouts | |
|  | |  |  | | --- | --- | | d) | Bike lanes | |

**Question 11** (1 point)

Consequences of urban areas on the hydrological cycle include \_\_\_\_\_\_\_\_.

Question 11 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | surface flooding | |
|  | |  |  | | --- | --- | | b) | polluted water | |
|  | |  |  | | --- | --- | | c) | reduced recharge of aquifers | |
|  | |  |  | | --- | --- | | d) | **All of the above.** | |

Save

**Question 12** (1 point)

The majority of Canadians live in which four main areas?

Question 12 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | Greater Toronto Area, Montreal-Maritimes Region, Lower Mainland BC, Calgary-Edmonton Corridor | |
|  | |  |  | | --- | --- | | b) | Golden Horse Region, Montreal Area, Lower Mainland BC, Calgary-Edmonton Corridor | |
|  | |  |  | | --- | --- | | c) | Greater Toronto Area, Montreal Area, Lower Mainland BC, Calgary-Edmonton Corridor | |
|  | |  |  | | --- | --- | | d) | **Golden Horseshoe Region, Montreal – Quebec Corridor, Lower Mainland BC, Maritimes** | |

Save

**Question 13** (1 point)

NIMBY stands for ‘Not in my backyard’, similarly, what does the acronym ‘LULU’ stand for and what would be an example of it?

Question 13 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | Locally Unwanted Land Units e.g. canola field | |
|  | |  |  | | --- | --- | | b) | **Locally Unwanted Land Uses e.g. landfill** | |
|  | |  |  | | --- | --- | | c) | Locally Unused Land Utilities e.g. derelict power station | |
|  | |  |  | | --- | --- | | d) | Limited Use Land Units e.g housing developments | |

Save

**Question 14** (1 point)

Finding sites for waste disposal can be challenging because of \_\_\_\_\_\_\_\_.

Question 14 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | waste incineration | |
|  | |  |  | | --- | --- | | b) | pollution | |
|  | |  |  | | --- | --- | | c) | underground water treatment | |
|  | |  |  | | --- | --- | | d) | **LULUs and NIMBY** | |

Save

**Question 15** (1 point)

Greenfields are \_\_\_\_\_\_\_\_.

Question 15 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | green spaces within cities | |
|  | |  |  | | --- | --- | | b) | previously developed land | |
|  | |  |  | | --- | --- | | c) | **undeveloped land** | |
|  | |  |  | | --- | --- | | d) | clearcuts | |

**Question 16** (1 point)

The most important limiting factor for most commuters is

Question 16 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | **the time it takes to drive to their job.** | |
|  | |  |  | | --- | --- | | b) | the health risks associated with getting to their job. | |
|  | |  |  | | --- | --- | | c) | the distance to their job. | |
|  | |  |  | | --- | --- | | d) | the cost of transportation to get to their job. | |

Save

**Question 17** (1 point)

When generally comparing life in suburban sprawl and life in the inner city, people living in the inner city

Question 17 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | **walk more.** | |
|  | |  |  | | --- | --- | | b) | have larger homes. | |
|  | |  |  | | --- | --- | | c) | enjoy lower-density residential living. | |
|  | |  |  | | --- | --- | | d) | experience lower crime rates. | |

Save

**Question 18** (1 point)

The footprint of a large city is \_\_\_\_\_\_\_\_ than/as the surrounding rural area.

Question 18 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | slightly higher | |
|  | |  |  | | --- | --- | | b) | much lower | |
|  | |  |  | | --- | --- | | c) | slightly lower | |
|  | |  |  | | --- | --- | | d) | **much higher** | |
|  | |  |  | | --- | --- | | e) | about the same size | |

Save

**Question 19** (1 point)

The common denominators of livable cities include

Question 19 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | low population density, concentrated housing, few stores and businesses, wide highways, and abundant parking. | |
|  | |  |  | | --- | --- | | b) | high population density, concentrated housing, limited business and stores, and a car-centered approach that makes driving easy. | |
|  | |  |  | | --- | --- | | c) | low population density, heterogeneous mixtures of residences and businesses, wide highways, and abundant parking for efficient transportation. | |
|  | |  |  | | --- | --- | | d) | **high population density and heterogeneous mixtures of residences and businesses that encourage people to socially interact.** | |

Save

**Question 20** (1 point)

Which one of the following permitted the widespread move into suburbs after WW II?

Question 20 options:

|  |  |  |  |
| --- | --- | --- | --- |
|  | |  |  | | --- | --- | | a) | increased use of telephones | |
|  | |  |  | | --- | --- | | b) | **increased ownership of automobiles** | |
|  | |  |  | | --- | --- | | c) | cheaper sources of energy | |
|  | |  |  | | --- | --- | | d) | improvements in the railway system | |