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ACT Practice Paper 5

English | Maths | Reading | Science

Section-wise answer keys with explanations

About This Paper

This is a Yocket original practice paper that follows the structure of the ACT. It contains 50 questions across four sections. Every passage and question is written by Yocket, so you can attempt it as a timed mock.

Section	Questions	Suggested time	What it tests
1. English	15	11 minutes	Grammar, punctuation, sentence structure, rhetorical skills
2. Maths	15	17 minutes	Algebra, geometry, statistics, probability, trigonometry
3. Reading	10	11 minutes	Main idea, detail, inference, vocabulary in context
4. Science	10	10 minutes	Reading tables, spotting variables, drawing conclusions

Suggested times follow the per-question pace of the full ACT sections, scaled down to this shorter paper.

How to Use It

- **Set a timer:** attempt each section in one sitting and stop when the suggested time ends.
- **Work on paper:** circle your answers, and keep the answer key closed until you finish the section.
- **Review every miss:** the key explains the reasoning, so you learn the method and not only the answer.
- **Treat your score as a diagnostic:** a short paper cannot produce an official ACT scale score, so use it to find your weak sections.

Section 1

English

15 questions | Suggested time: 11 minutes | Choose the best answer for each underlined portion or question. Choose NO CHANGE if the underlined portion is already correct.

Passage I: Bike-Sharing Schemes

Bike-sharing schemes let residents borrow a bicycle from a docking station, ride it across town, and return it to any other station. In crowded city centres, a bicycle is often **[1]**more faster than a car, and riders never need to hunt for a parking space. Most schemes charge by the half hour**[2]**, so short trips are the cheapest option.

Operators track every bicycle with a GPS tag, **[3]**whom lets them see where each one is parked. Bicycles pile up at stations in popular areas while others run empty, so crews load surplus bicycles into vans and **[4]**return them back to empty stations, which adds to operating costs. **[5]**

1.

- **A.** NO CHANGE
- **B.** most faster
- **C.** faster
- **D.** more fast

2.

- **A.** NO CHANGE
- **B.** , so, short trips
- **C.** ; so short trips
- **D.** , but short trips

3.

- **A.** NO CHANGE
- **B.** whose
- **C.** which
- **D.** who

4.

- **A.** NO CHANGE
- **B.** return them
- **C.** return them back again
- **D.** carry them and return back

5. Which choice best concludes the passage?

- **A.** Vans are widely used to deliver goods in cities.
- **B.** Many riders wear helmets while cycling.
- **C.** Bicycles have two wheels, a frame, and a chain.
- **D.** Even with these costs, a shared bicycle gives a city a cheap, clean way to move people over short distances.

Passage II: The Chess Club

On the first Friday of term, Dara carried her old wooden chessboard into Room 14 and **[6]**sets it on the nearest desk. Three other students were already there**[7]**, they were arranging pieces in silence. Dara lost her first game in eleven moves. **[8]**

By the end of term, the club had grown to fourteen members. Members learn to **[9]**plan ahead, stay calm, and accepting defeat gracefully. **[10]**

6.

- **A.** NO CHANGE
- **B.** set
- **C.** will set
- **D.** has been setting

7.

- **A.** NO CHANGE
- **B.** ; arranging
- **C.** . Arranging
- **D.** , arranging

8. Which choice best shows Dara's growing confidence?

- **A.** She grinned anyway, reset the pieces, and asked for a rematch.
- **B.** The board had belonged to her grandmother.
- **C.** Eleven moves is a short game by tournament standards.
- **D.** Room 14 faces the playground.

9.

- **A.** NO CHANGE
- **B.** planning ahead, stay calm, and accept
- **C.** plan ahead, staying calm, and accepting
- **D.** plan ahead, stay calm, and accept

10. Which choice best ends the passage?

- **A.** The school library has several books about chess strategy.
- **B.** Chess is played on a board of sixty-four squares.
- **C.** At the last meeting of term, Dara set up her grandmother's board again, and this time a line of players waited to challenge her.
- **D.** Room 14 is also used for art classes.

Passage III: Lighthouses

Before satellite navigation, ships relied on lighthouses to avoid rocks and shallow water. To tell one tower from another, each lighthouse flashed its own pattern**[11]**, such as one long flash, two short flashes, or a steady beam. Each **[12]**keepers job was to trim the wick, polish the lens, and record the weather **[13]**in a book which was called a logbook.

Automation has since ended the keeper's role. Today, most lighthouses **[14]**is controlled by timers and sensors. **[15]**

11.

A. NO CHANGE
B. , although
C. , in spite of
D. , because of

12.

A. NO CHANGE
B. keepers'
C. keeper's
D. keepers's

13.

A. NO CHANGE
B. within a book known as a logbook
C. in a book which was a logbook
D. in a logbook

14.

A. NO CHANGE
B. has been
C. are
D. was

15. Which choice best concludes the passage?

A. Though no longer essential for navigation, many lighthouses remain open as museums that record how sailors once found their way.
B. Many tourists enjoy visiting the seaside.
C. Some lamps used oil, and others used gas.
D. Lighthouses are usually built on rocky coasts.

Answer Key: Section 1, English

Mark your paper, then count your correct answers. Read the explanation for every question you missed or guessed.

Q	Answer	Why it is correct
1	**C**	*Faster* is already a comparative form, so *more* is redundant.
2	**A**	*So* correctly shows that short trips are cheap because of the half-hour pricing.
3	**C**	The tag is a thing, so *which* is needed. *Whom* refers to people.
4	**B**	*Return* already means to go or send back, so *back* is redundant.
5	**D**	It weighs the benefit against the costs mentioned. The others add unrelated facts.
6	**B**	The passage is in the past tense, so *set* (past) is correct.
7	**D**	A participle phrase attaches to the sentence with a comma. The original is a comma splice.
8	**A**	It shows how she responds to losing. The others are neutral details.
9	**D**	The three actions must be parallel: *plan, stay, and accept*.
10	**C**	It returns to Dara and the board from the opening and shows how far she has come.
11	**A**	*Such as* introduces examples of the patterns.
12	**C**	*Each* signals one keeper, so the singular possessive is *keeper's*.
13	**D**	*In a logbook* says the same thing without repeating itself.
14	**C**	The subject *lighthouses* is plural and the sentence is in the present, so *are* is needed.
15	**A**	It ends on the present-day role of lighthouses, which follows from automation.

Your score: _____ / 15

13 to 15 correct: strong. **9 to 12:** review the missed topics. **Below 9:** revisit the basics before your next paper.

Section 2

Maths

15 questions | Suggested time: 17 minutes | Solve each problem and choose the best answer. A calculator is allowed. Figures are not necessarily drawn to scale.

1. 18 is what percent of 72?

A. 4%
B. 18%
C. 25%
D. 75%

2. What is the value of x if (2x + 1) / 3 = 5?

A. 6
B. 7
C. 8
D. 14

3. Six pens cost $4.50. At the same price per pen, what is the cost of 14 pens?

A. $9.50
B. $10.00
C. $10.50
D. $11.25

4. What are the coordinates of the midpoint of the segment with endpoints (−2, 3) and (6, 9)?

A. (2, 3)
B. (4, 6)
C. (4, 12)
D. (2, 6)

5. What is the median of 3, 9, 4, 12, and 8?

A. 4
B. 7.2
C. 8
D. 9

6. A circle of radius 5 cm is inscribed in a square, touching all four sides. What is the area of the square?

A. 25 cm^2
B. 50 cm^2
C. 78.5 cm^2
D. 100 cm^2

7. What is the value of $(2^3)^2 \div 2^4$?

A. 2
B. 4
C. 8
D. 16

8. A line passes through (0, 4) and (3, −2). What is its x-intercept?

A. −2
B. 1
C. 2
D. 4

9. A number is chosen at random from the integers 1 to 20. What is the probability that it is a multiple of 3?

A. 1/4
B. 3/10
C. 1/3
D. 2/5

10. How many real solutions does $x^2 - 4x + 5 = 0$ have?

A. 1
B. 2
C. Infinitely many
D. 0

11. Pipe A fills a tank in 6 hours and pipe B fills it in 3 hours. Working together, how long do they take?

A. 2 hours
B. 3 hours
C. 4.5 hours
D. 9 hours

12. A 2 m pole casts a 3 m shadow. At the same time, a tree casts a 12 m shadow. How tall is the tree?

A. 6 m
B. 8 m
C. 9 m
D. 18 m

13. A geometric sequence begins 3, 6, 12, ... What is the 7th term?

A. 18
B. 96
C. 192
D. 384

14. What is the value of $\sin 30° + \cos 60°$?

A. 0.5
B. 1
C. 1.5
D. 2

15. The lines $y = 2x + 1$ and $y = -x + 7$ intersect at a point. What is the sum of its coordinates?

A. 2
B. 5
C. 7
D. 9

Answer Key: Section 2, Maths

Mark your paper, then count your correct answers. Read the explanation for every question you missed or guessed.

Q	Answer	Why it is correct
1	**C**	18 ÷ 72 = 0.25, which is 25%.
2	**B**	Multiply by 3: 2x + 1 = 15, so 2x = 14 and x = 7.
3	**C**	Each pen costs 4.50 ÷ 6 = \$0.75. Fourteen pens cost 14 × 0.75 = \$10.50.
4	**D**	Midpoint = ((−2 + 6)/2, (3 + 9)/2) = (2, 6).
5	**C**	In order: 3, 4, 8, 9, 12. The middle value is 8. The mean is 7.2.
6	**D**	The side of the square equals the circle's diameter, 10 cm. The area is 10 × 10 = 100.
7	**B**	$(2^3)^2 = 2^6$, and $2^6 \div 2^4 = 2^2 = 4$.
8	**C**	The slope is (−2 − 4) ÷ 3 = −2, so y = −2x + 4. Setting y = 0 gives x = 2.
9	**B**	The multiples of 3 are 3, 6, 9, 12, 15, and 18, so P = 6/20 = 3/10.
10	**D**	The discriminant is $(-4)^2 - 4(1)(5) = -4$, which is negative, so there are no real solutions.
11	**A**	Their combined rate is 1/6 + 1/3 = 1/2 of the tank per hour, so the tank fills in 2 hours.
12	**B**	The ratio of height to shadow is 2/3, so the tree is 12 × 2/3 = 8 m tall.
13	**C**	The ratio is 2, so the 7th term is $3 \times 2^6 = 192$.
14	**B**	sin 30° = 0.5 and cos 60° = 0.5, so the sum is 1.
15	**C**	Set 2x + 1 = −x + 7, so x = 2 and y = 5. The sum is 7.

Your score: _____ / 15

13 to 15 correct: strong. **9 to 12:** review the missed topics. **Below 9:** revisit the basics before your next paper.

Section 3

Reading

10 questions | Suggested time: 11 minutes | Read each passage and choose the best answer to each question based on what is stated or implied.

Passage I: The Violin Maker (Prose Fiction)

Every morning before the shop opened, Ilya ran his thumb along the neck of the unfinished violin on his bench, feeling for flaws no customer would ever see. The instrument had been three years in the making. The wood, a plank of spruce he had bought at an auction, had spent two of those years drying in the attic, and Ilya had refused every offer to hurry it.

His apprentice, Paolo, could not understand this. “A violin is a violin,” he said one afternoon. “Who will know?”

Ilya set down his chisel. “The player will know,” he said. “Not today, perhaps. But in thirty years, when the sound has opened and deepened, she will know whether I cut a corner.” He turned the violin toward the window, and the varnish glowed like honey. “I will be gone by then. The violin will not.”

Paolo said nothing. He picked up a cloth and began to polish the scroll, slowly, the way Ilya did. Ilya pretended not to notice, but he was smiling when he returned to his work.

1. The detail that the spruce dried for two years in the attic mainly shows that Ilya:

- **A.** values patience over speed.
- **B.** lacks storage space.
- **C.** distrusts auctions.
- **D.** wants to sell the violin quickly.

2. Paolo's question “Who will know?” suggests that he:

- **A.** believes the violin is already perfect.
- **B.** is afraid of Ilya.
- **C.** wants to buy the violin.
- **D.** thinks small flaws are unimportant.

3. Ilya's remark “I will be gone by then. The violin will not.” suggests that he:

- **A.** hopes his work will outlast him.
- **B.** is planning to retire.
- **C.** fears the player will be disappointed.
- **D.** expects the violin to be sold soon.

4. The passage suggests that, by the end, Paolo:

- **A.** plans to leave the shop.
- **B.** wants Ilya to work faster.
- **C.** has decided Ilya is wrong.
- **D.** has begun to adopt Ilya's careful approach.

5. As used in the first paragraph, “flaws” most nearly means:

- **A.** small imperfections.
- **B.** special features.
- **C.** high prices.
- **D.** old repairs.

Passage II: Why Teenagers Sleep Late (Social Science)

Parents often blame laziness when a teenager will not get up before nine, but sleep researchers point to biology. During puberty, the body's internal clock shifts, so that melatonin, the hormone that signals bedtime, is released about one to two hours later than it was in childhood. A fifteen-year-old who feels wide awake at eleven at night is not necessarily avoiding sleep; their body may genuinely not be ready for it.

This shift collides with school timetables. Teenagers need roughly eight to ten hours of sleep, yet many schools start before eight in the morning. A teenager who falls asleep at midnight and wakes at six is already two or more hours short each night, and the deficit accumulates across the week.

Some districts have responded by starting school later. Studies of these changes have generally reported better attendance and fewer car accidents among older students, though researchers caution that results vary with how much later the day begins and how well families adjust bedtimes. Critics also point to practical costs, including bus schedules and after-school sports. For now, the debate continues, but few researchers dispute the basic point: a teenager's late nights are partly a matter of biology, not only choice.

6. Which choice best states the main idea of the passage?

- **A.** Later school start times have been proven to solve every problem.
- **B.** Teenagers' late sleep patterns have biological causes, and early school starts can clash with them.
- **C.** Teenagers need less sleep than children.
- **D.** Teenagers sleep late because they are lazy.

7. According to the passage, melatonin is released later during puberty by about:

- **A.** thirty minutes.
- **B.** half a day.
- **C.** one to two hours.
- **D.** six hours.

8. The author describes a teenager who falls asleep at midnight and wakes at six in order to show that:

- **A.** early school starts can leave teenagers short of sleep.
- **B.** teenagers prefer to wake early.
- **C.** midnight is the ideal bedtime.
- **D.** sleep needs vary from week to week.

9. Which criticism of later school start times does the passage mention?

- **A.** They reduce attendance among older students.
- **B.** They give teenagers too much sleep.
- **C.** They increase the number of car accidents.
- **D.** They create practical costs such as bus schedules and after-school sports.

10. The author's attitude toward the idea that late nights are only a matter of choice is best described as:

- **A.** sceptical.
- **B.** indifferent.
- **C.** enthusiastic.
- **D.** hostile.

Answer Key: Section 3, Reading

Mark your paper, then count your correct answers. Read the explanation for every question you missed or guessed.

Q	Answer	Why it is correct
1	**A**	The passage says he refused every offer to hurry the wood.
2	**D**	He asks who will notice, which implies that hidden flaws do not matter.
3	**A**	He says the violin will remain after he is gone, so he thinks of his work as lasting.
4	**D**	He polishes the scroll slowly, the way Ilya does, and Ilya smiles.
5	**A**	Ilya feels for flaws no customer would see, which means tiny imperfections.
6	**B**	The passage explains the biology, the clash with timetables, and the debate over later starts.
7	**C**	The first paragraph gives a shift of about one to two hours.
8	**A**	The example shows a deficit of two or more hours each night.
9	**D**	The third paragraph says critics point to practical costs, including bus schedules and sports.
10	**A**	The author says late nights are partly biology, not only choice, which questions the claim without attacking it.

Your score: _____ / 10

9 to 10 correct: strong. **6 to 8:** review the missed topics. **Below 6:** revisit the basics before your next paper.

Section 4

Science

10 questions | Suggested time: 10 minutes | Each passage is followed by questions. Refer to the passage and tables as needed. A calculator is allowed.

Passage I: Keeping Water Hot

Students filled containers with 200 mL of water at 90 °C in a room at 20 °C. They measured the water temperature after 20 minutes.

Experiment 1: The students used four containers made of different materials. The results appear in Table 1.

Experiment 2: The students used foam cups and changed the volume of water, starting each at 90 °C. The results appear in Table 2.

Table 1

Container	Final temperature (°C)
Metal can	52
Glass jar	58
Ceramic mug	62
Foam cup	74

Table 2

Volume of water (mL)	Final temperature (°C)
100	61
200	74
300	79
400	82

1. According to Experiment 1, the water stayed hottest in which container?

- **A.** Glass jar
- **B.** Foam cup
- **C.** Metal can
- **D.** Ceramic mug

2. Which variable was kept constant in Experiment 1?

- **A.** The container material
- **B.** The final temperature of the water
- **C.** The mass of each container
- **D.** The starting temperature of the water

3. In Experiment 2, as the volume of water increased, the final temperature:

- **A.** increased and then decreased.
- **B.** increased.
- **C.** stayed the same.
- **D.** decreased.

4. Based on Table 2, the final temperature for 250 mL of water would most likely be closest to:

- **A.** 77 °C
- **B.** 70 °C
- **C.** 82 °C
- **D.** 90 °C

5. Based on Experiment 1, which container would be best for keeping a drink hot?

A. Glass jar
B. Foam cup
C. Ceramic mug
D. Metal can

Passage II: Fertiliser and Seedling Height

Students grew tomato seedlings in pots of the same soil, with 10 seedlings per pot. They gave each pot the same amount of light and water and measured the average seedling height after 21 days.

Experiment 1: The students added different amounts of Fertiliser A to the pots. The results appear in Table 3.

Experiment 2: The students added 2 g of a different fertiliser to each pot. The results appear in Table 4.

Table 3

Fertiliser A (g per pot)	Average height (cm)
0	14
1	19
2	24
4	27
8	22

Table 4

Fertiliser (2 g per pot)	Average height (cm)
None	14
A	24
B	21
C	17

6. According to Experiment 1, which amount of Fertiliser A produced the tallest seedlings?

A. 8 g
B. 4 g
C. 2 g
D. 0 g

7. In Experiment 1, as the amount of Fertiliser A increased from 4 g to 8 g, the average height:

A. increased.
B. stayed the same.
C. decreased.
D. doubled.

8. According to Experiment 2, which fertiliser produced the greatest average height?

A. A
B. None
C. C
D. B

9. In Experiment 2, how much taller were the seedlings given Fertiliser B than the seedlings given no fertiliser?

A. 10 cm
B. 7 cm
C. 21 cm
D. 3 cm

10. Which conclusion is best supported by the results?

A. Height rises with every extra gram of fertiliser.
B. More fertiliser is not always better, because 8 g gave less growth than 4 g.
C. Fertiliser C is the best choice.
D. Fertiliser has no effect on height.

Answer Key: Section 4, Science

Mark your paper, then count your correct answers. Read the explanation for every question you missed or guessed.

Q	Answer	Why it is correct
1	**B**	Table 1 shows 74 °C for the foam cup, the highest value.
2	**D**	Every container began with 90 °C water. The material was the variable and the final temperature was the result.
3	**B**	The final temperature rises from 61 °C to 82 °C.
4	**A**	250 mL lies between 200 mL (74 °C) and 300 mL (79 °C), so the temperature is between those values.
5	**B**	The foam cup lost the least heat in 20 minutes.
6	**B**	Table 3 shows 27 cm at 4 g, the highest value.
7	**C**	The height falls from 27 cm to 22 cm.
8	**A**	Fertiliser A gave 24 cm, the highest value in Table 4.
9	**B**	21 cm minus 14 cm is 7 cm.
10	**B**	Table 3 shows the height drops when the amount rises from 4 g to 8 g.

Your score: _____ / 10

9 to 10 correct: strong. **6 to 8:** review the missed topics. **Below 6:** revisit the basics before your next paper.

Your Next Steps

Add up your four section scores and note which section cost you the most marks. Spend your next study week on that section, then attempt a fresh paper under timed conditions.

Section	Your score	Out of
English	_____	15
Maths	_____	15
Reading	_____	10
Science	_____	10
Total	_____	**50**

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