LEARNDIGITALPH · FREE REVIEWER

PMA Entrance Exam Reviewer 2027

20 practice questions with answer key and explanations

These questions are original practice items, not actual exam items. LearnDigitalPH is independent and is not affiliated with or endorsed by Philippine Military Academy (PMA) — Office of Cadet Recruitment and Admission (OCRA). Exam facts checked as of October 2026: always confirm with the official agency.

Passing score: Not published — PMA releases a list of passers (4.78% of qualified examinees passed in 2026)

ALGEBRA AND GEOMETRY

1. If $3x - 7 = 2x + 5$, what is the value of x?

A. −12
B. −2
C. 12
D. 2

ALGEBRA AND GEOMETRY

2. What are the roots of $x^2 - 7x + 10 = 0$?

A. −1 and −10
B. −2 and −5
C. 2 and 5
D. 1 and 10

ALGEBRA AND GEOMETRY

3. A rectangle has a perimeter of 46 cm. Its length is 3 cm more than its width. What is its area?

A. 126 cm^2
B. 130 cm^2
C. 143 cm^2
D. 120 cm^2

ALGEBRA AND GEOMETRY

4. The legs of a right triangle measure 9 cm and 12 cm. How long is the hypotenuse?

A. 13 cm
B. 15 cm
C. 17 cm
D. 21 cm

ALGEBRA AND GEOMETRY

5. Simplify: $(2a^3b)(3ab^2)^2$

A. $6a^5b^5$
B. $18a^4b^5$
C. $18a^5b^5$
D. $12a^5b^4$

GRAMMAR AND COMPOSITION

6. Neither the captain nor the cadets ___ aware of the schedule change yesterday.

A. has been

B. was

C. were

D. is

GRAMMAR AND COMPOSITION

7. The proctor handed the exam permits to Ana and ___.

A. me

B. I

C. mine

D. myself

GRAMMAR AND COMPOSITION

8. Which word is used incorrectly in this sentence? "If I was the commander, I would order the troops to rest before the climb."

A. would

B. was

C. before

D. order

GRAMMAR AND COMPOSITION

9. Which sentence is written correctly, without a dangling modifier?

A. Running up the hill, the cadet felt his backpack grow heavier.

B. Running up the hill, heavier and heavier was the backpack.

C. Running up the hill, the backpack felt heavier to the cadet.

D. The backpack, running up the hill, felt heavier to the cadet.

READING AND COMPREHENSION

10. Read the passage: "Mangroves line much of the Philippine coastline. Their tangled roots slow down waves, trap sediment, and shelter young fish. When mangroves are cleared for fishponds, coastal towns lose a natural barrier against storm surges, and fishers often report smaller catches within a few years." What is the main idea of the passage?

A. Fishponds are more profitable than mangrove forests.

B. Young fish can survive only among mangrove roots.

C. Storm surges are caused by the removal of mangroves.

D. Mangroves protect coasts and support fisheries, so clearing them has real costs.

READING AND COMPREHENSION

11. Read the passage: "Mangroves line much of the Philippine coastline. Their tangled roots slow down waves, trap sediment, and shelter young fish. When mangroves are cleared for fishponds, coastal towns lose a natural barrier against storm surges, and fishers often report smaller catches within a few years." According to the passage, what often happens to fishers after mangroves are cleared?

A. They catch more fish because the water is clearer.

B. Their catches become smaller within a few years.

C. They earn more from the new fishponds.

D. They move to inland farms.

READING AND COMPREHENSION

12. Read the passage: "Before every 3.2-kilometer run, Cadet Reyes studied the route. She noted where the road climbed and where it dropped, and planned to save energy on the uphill stretches and speed up on the downhill parts. Her teammates teased her for 'running the race twice,' once on paper and once on the road, but her times kept improving." The phrase 'running the race twice' most likely refers to Reyes's habit of

A. planning the route in detail before actually running it

B. running the route two times every morning

C. repeating the race whenever her time was poor

D. finishing twice as fast as her teammates

READING AND COMPREHENSION

13. Read the passage: "Before every 3.2-kilometer run, Cadet Reyes studied the route. She noted where the road climbed and where it dropped, and planned to save energy on the uphill stretches and speed up on the downhill parts. Her teammates teased her for 'running the race twice,' once on paper and once on the road, but her times kept improving." Which conclusion is best supported by the passage?

A. The 3.2-kilometer route was mostly downhill.

B. Reyes disliked running uphill.

C. Careful preparation helped Reyes improve her performance.

D. The teasing made Reyes run slower.

VERBAL AND NUMERICAL REASONING

14. COMPASS is to DIRECTION as THERMOMETER is to ___.

A. temperature

B. weather

C. fever

D. mercury

VERBAL AND NUMERICAL REASONING

15. Choose the word closest in meaning to RESOLUTE.

A. peaceful

B. respectful

C. hesitant

D. determined

VERBAL AND NUMERICAL REASONING

16. Suppose a jeepney fare is P13.00 for the first 4 km and P1.80 for every additional kilometer. How much is the fare for a 9-km ride?

A. P20.20
B. P22.00
C. P16.20
D. P29.20

VERBAL AND NUMERICAL REASONING

17. Five cadets finished a run. Ana finished ahead of Ben. Carlo finished behind Ben but ahead of Dina. Ella finished last. Who finished fourth?

A. Ben
B. Ella
C. Carlo
D. Dina

PATTERN ANALYSIS

18. What number comes next? 2, 6, 12, 20, 30, ___

A. 40
B. 36
C. 44
D. 42

PATTERN ANALYSIS

19. What letter comes next? A, C, F, J, O, ___

A. S
B. V
C. U
D. T

PATTERN ANALYSIS

20. If CADET is coded as DBEFU, how is ARMY coded?

A. ZQLX
B. BSOZ
C. BQNZ
D. BSNZ

Answer key and explanations

1. C. 12
Subtract 2x from both sides: x − 7 = 5. Add 7: x = 12. Check: 3(12) − 7 = 29 and 2(12) + 5 = 29. If you got −2, you subtracted 7 instead of adding it.

2. C. 2 and 5
Find two numbers that multiply to 10 and add to −7: −2 and −5. So (x − 2)(x − 5) = 0, giving x = 2 or x = 5. Watch the signs: −2 and −5 sit inside the factors, but the roots are positive.

3. B. 130 cm²
Perimeter: 2(w + w + 3) = 46, so 2w + 3 = 23 and w = 10 cm. The length is 13 cm. Area = 10 × 13 = 130 cm². Don't stop at w: the question asks for the area, so you still have to multiply.

4. B. 15 cm
Pythagorean theorem: $c^2 = 9^2 + 12^2 = 81 + 144 = 225$, so c = √225 = 15 cm. This is the 3-4-5 triangle scaled by 3. Adding the legs to get 21 is the common slip; the hypotenuse is never their plain sum.

5. C. $18a^5b^5$
Do the power first: $(3ab^2)^2 = 9a^2b^4$. Then multiply: $2a^3b \times 9a^2b^4 = 18a^5b^5$ (multiply the coefficients, add the exponents). Choice A forgets to square the 3, and B miscounts the exponent of a.

6. C. were
With 'neither…nor,' the verb agrees with the subject nearer to it. 'Cadets' is plural and 'yesterday' calls for the past tense, so 'were' fits. 'Was' would work only if 'the captain' came second.

7. A. me
'To' is a preposition, so the pronoun after it takes the objective case: 'me.' Test by dropping 'Ana and': 'handed the permits to me,' never 'to I.' 'Myself' is only for when the subject acts on itself.

8. B. was
This 'if' clause states something contrary to fact: the speaker is not the commander. Such clauses take the subjunctive 'were': 'If I were the commander…'. The 'would order' that follows is correct.

9. A. Running up the hill, the cadet felt his backpack grow heavier.
An opening phrase must describe the noun right after it. In A, 'Running up the hill' describes 'the cadet,' who really is running. In B and C it attaches to the backpack, and D says outright that the backpack is running.

10. D. Mangroves protect coasts and support fisheries, so clearing them has real costs.
A main idea must cover the whole passage. It says what mangroves do and what is lost when they are cleared, and only D covers both. B's 'only' goes too far, and C confuses losing protection from surges with causing them.

11. B. Their catches become smaller within a few years.
The last sentence answers this directly: fishers 'often report smaller catches within a few years.' Choice A says the opposite, and C and D add things the passage never states, so go back to the exact words.

12. A. planning the route in detail before actually running it
The teammates explain the joke themselves: once 'on paper' (studying and planning the route) and once 'on the road' (the real run). Choice B takes the phrase literally, but she never actually runs the route two times.

13. C. Careful preparation helped Reyes improve her performance.
The passage links her planning to results: she studied each route and 'her times kept improving.' The route had both climbs and drops, so A fails, and nothing says she disliked hills or that teasing slowed her down.

14. A. temperature

The relationship is instrument : what it measures. A compass shows direction and a thermometer shows temperature. 'Weather' and 'fever' are tempting, but those are situations where you use one, not what it measures.

15. D. determined

Resolute means firmly decided and not easily turned from a goal, so 'determined' is closest. 'Hesitant' is nearly the opposite. Don't pick 'respectful' just because it looks a little like 'resolute.'

16. B. P22.00

The P13.00 base fare covers the first 4 km, so only 9 − 4 = 5 km are extra. 5 × P1.80 = P9.00, and P13.00 + P9.00 = P22.00. Charging all 9 km at P1.80 gives P29.20, which double-counts the first 4 km.

17. D. Dina

Line them up: Ana is ahead of Ben, Ben is ahead of Carlo, and Carlo is ahead of Dina. Ella is last. That gives Ana, Ben, Carlo, Dina, Ella, so Dina is 4th. Carlo, the tempting pick, is 3rd.

18. D. 42

The differences are 4, 6, 8, 10, so the next difference is 12: 30 + 12 = 42. Another way to see it: each term is n × (n + 1), such as 5 × 6 = 30 and 6 × 7 = 42.

19. C. U

Turn letters into positions: A=1, C=3, F=6, J=10, O=15. The jumps are +2, +3, +4, +5, so the next is +6: 15 + 6 = 21, which is U. Choice D (T=20) comes from repeating the +5.

20. D. BSNZ

Every letter moves one place forward: C→D, A→B, D→E, E→F, T→U. Apply the same shift to ARMY: A→B, R→S, M→N, Y→Z, giving BSNZ. Check each letter, since two wrong choices differ by just one letter.

Keep practicing online

Take this test timed and get a score per subject, then try the two full mock exams:
https://www.learndigitalph.com/reviewers/pma-entrance-exam