

ASVAB

Foundation Worksheet

8 original questions, working space and separate answer explanations. Version 2026-10-28.

Scope

US English selected foundations in AR, MK, WK and PC. Not a complete battery course, official adaptive test, official score conversion, enlistment decision or military operations instruction. Science/technical/spatial gaps explicit; qualified educator review pending..

This is an untimed foundation study sample, not an official examination or complete mock test. Author-reviewed learning materials; independent educator review and learner calibration remain pending.

How to use this worksheet

Work through the questions before opening the answer section. Write your calculation or the reason for your choice. After checking the explanation, return to the linked lesson for any unfamiliar distinction.

<https://openexam.site/exams/asvab/worksheets/>

QUESTION 1 / Translate a rate and honor whole-package constraints

A volunteer workshop needs 9 identical kits, each requiring 14 fasteners. Fasteners are sold only in sealed packages of 20, and unused fasteners can be shared across kits. There is no other stock. What is the minimum number of packages needed?

- A. 8 packages.
- B. 9 packages.
- C. 7 packages.
- D. 6 packages.

Working / reasoning:

Item asvab-pilot-q01 | Lesson: <https://openexam.site/exams/asvab/learn/asvab-unit-02/>

QUESTION 2 / Distribute completely and keep both sides balanced

What value of x satisfies $4(x - 2) = 2x + 10$?

- A. 3.
- B. 1.
- C. 9.
- D. 6.

Working / reasoning:

Item asvab-pilot-q04 | Lesson: <https://openexam.site/exams/asvab/learn/asvab-unit-05/>

QUESTION 3 / Use the sentence to constrain a word meaning

The committee was frugal: instead of replacing every worn chair, it repaired usable chairs and bought only the few replacements it needed. As used here, frugal most nearly means:

- A. generous.
- B. economical.
- C. indecisive.
- D. careless.

Working / reasoning:

Item asvab-pilot-q07 | Lesson: <https://openexam.site/exams/asvab/learn/asvab-unit-07/>

QUESTION 4 / Read for the central claim before collecting details

Read the original passage.

The community center held two trial repair clinics. Volunteers repaired many chairs and small household items, although some requests required tools the center did not own. The attendance log showed interest on both Saturdays. The coordinator proposes a monthly clinic, with advance descriptions of items so volunteers can identify requests beyond their equipment. Because materials were donated during the trials, their low expenses do not establish the cost of future clinics.

Which statement best expresses the passage's main point?

- A. A monthly clinic is proposed, while equipment and cost limits still need attention.
- B. The trial expenses establish a dependable budget for every future repair clinic.
- C. The trials mainly compared which neighborhoods supplied replacement materials.
- D. New equipment purchases should replace the proposed monthly repair sessions.

Working / reasoning:

Item asvab-pilot-q10 | Lesson: <https://openexam.site/exams/asvab/learn/asvab-unit-09/>

QUESTION 5 / Convert completion times before combining independent work

Printer A can print a 120-page job in 4 minutes; printer B can print the same size job in 6 minutes. For this arithmetic model, both work simultaneously at constant rates on different pages of one 120-page job, with no startup time. Fractional minutes are allowed. How long does the job take?

- A. 2.4 minutes.
- B. 2 minutes.
- C. 10 minutes.
- D. 5 minutes.

Working / reasoning:

Item asvab-pilot-q02 | Lesson: <https://openexam.site/exams/asvab/learn/asvab-unit-03/>

QUESTION 6 / Separate material area from boundary length and diagonal length

A flat rectangular display frame has outer dimensions 9 cm by 7 cm and a rectangular opening 7 cm by 5 cm. The opening is entirely inside the outer rectangle. What is the area of the frame material, ignoring thickness?

- A. 28 cm².
- B. 63 cm².
- C. 32 cm².
- D. 35 cm².

Working / reasoning:

Item asvab-pilot-q05 | Lesson: <https://openexam.site/exams/asvab/learn/asvab-unit-06/>

QUESTION 7 / Check the sense against the event and its conditions

The paper display was taken apart for transport. At the new venue, Lena reassembled it, using the numbered tabs to restore its earlier arrangement. In this sentence, reassembled most nearly means:

- A. decorate for display.
- B. take apart completely.
- C. put together again.
- D. check for damage.

Working / reasoning:

Item asvab-pilot-q08 | Lesson: <https://openexam.site/exams/asvab/learn/asvab-unit-08/>

QUESTION 8 / Follow a stated rule and resolve what a phrase refers to

Read the original passage.

A workshop publishes its digital weekend schedule each Monday. Any change made after Wednesday is displayed in red on that digital schedule. Printed Monday copies are not revised. A Friday notice states that the Saturday start time was changed on Thursday; no other change is mentioned. The notice directs readers to the digital version for the updated time.

Which conclusion must follow from the passage?

- A. The Saturday entry must have been changed at least twice.
- B. The printed Monday copies now show the Thursday change.
- C. Every weekend session has a different start time this week.
- D. The digital Saturday entry displays the change in red.

Working / reasoning:

Item asvab-pilot-q11 | Lesson: <https://openexam.site/exams/asvab/learn/asvab-unit-10/>

ASVAB: Answers & Explanations

Compare the method or rule as well as the final answer. These explanations are study aids, not official scoring guidance.

QUESTION 1 / asvab-pilot-q01

Answer: 7 packages.

1. The kits need $9 \times 14 = 126$ fasteners. Six packages contain 120, which is insufficient. Seven contain 140, enough with 14 left over. Because packages cannot be split at purchase, the quotient $126/20 = 6.3$ must be rounded up, not to the nearest whole number.

QUESTION 2 / asvab-pilot-q04

Answer: 9.

1. Distribute first: $4x - 8 = 2x + 10$. Subtract $2x$ from both sides and add 8 to both sides to obtain $2x = 18$, so $x = 9$. Substitution checks both sides: $4(9 - 2) = 28$ and $2(9) + 10 = 28$.

QUESTION 3 / asvab-pilot-q07

Answer: economical.

1. The stated choices limit unnecessary spending while meeting the need. Economical fits that meaning. The sentence does not describe difficulty deciding, giving more to others, or failing to take care. The interpretation comes from the contrast between blanket replacement and selective repair/purchase.

QUESTION 4 / asvab-pilot-q10

Answer: A monthly clinic is proposed, while equipment and cost limits still need attention.

1. The proposal is a monthly clinic, informed by interest but qualified by equipment limits and uncertain future costs. The proposal-with-limits statement integrates the recommendation and its stated reservations. Equipment and donated materials are supporting details; the passage does not replace the clinic with purchases or report a neighborhood comparison.

QUESTION 5 / asvab-pilot-q02

Answer: 2.4 minutes.

1. A prints $120/4 = 30$ pages/minute and B prints $120/6 = 20$ pages/minute. Together they print 50 pages/minute because their outputs are independent and distinct. The 120-page job therefore takes $120/50 = 2.4$ minutes. At that time A prints 72 pages and B 48, totaling 120.

QUESTION 6 / asvab-pilot-q05

Answer: 28 cm².

1. The outer area is $9 \times 7 = 63 \text{ cm}^2$. The opening area is $7 \times 5 = 35 \text{ cm}^2$. Material occupies the difference, $63 - 35 = 28 \text{ cm}^2$. The problem asks for area, so a boundary length is not the requested quantity.

QUESTION 7 / asvab-pilot-q08

Answer: put together again.

1. The display starts in separate parts and ends in its earlier arrangement. Put together again fits both the prior disassembly and the restoration. Decorating or inspecting could occur separately, but neither describes the stated rebuilding action. The word shape can prompt a hypothesis; the surrounding sentence confirms it here.

QUESTION 8 / asvab-pilot-q11

Answer: The digital Saturday entry displays the change in red.

1. The change occurred on Thursday, which is after Wednesday. The stated rule therefore requires red display on the digital schedule. The passage explicitly says printed copies are not revised. It gives no basis for changes to every session or for a second change to Saturday. Only the forward application of the rule is needed.

References and scope notes

The questions and teaching explanations are original catalog materials. References support the selected concepts; they are not endorsements or a reproduced official examination bank.

Steps for Using Context Clues to Determine Word Meanings

<https://ies.ed.gov/use-work/resource-library/resource/fact-sheetinfographicfaq/steps-using-context-clues-determine-word-meanings>

Reference Section: Intermediate Algebra

<https://opentextbc.ca/intermediatealgebraberg/back-matter/reference-section/>

Use a General Strategy to Solve Linear Equations

<https://opentextbc.ca/introalgebra/chapter/use-a-general-strategy-to-solve-linear-equations/>

Solve Proportions and their Applications

<https://openstax.org/books/prealgebra/pages/6-5-solve-proportions-and-their-applications>

ASVAB Subtests

<https://www.officialasvab.com/applicants/subtests/>

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