

1. 080114a, P.I. A.N.5

In his will, a man leaves one-half of his money to his wife, one-half of what is then left to his older child, and one-half of what is then left to his younger child. His two cousins divide the remainder equally, each receiving \$2,000. What was the total amount of money in the man's will?

- [A] \$40,000 [B] \$16,000
[C] \$32,000 [D] \$24,000

2. 060116a, P.I. A.N.5

A boy got 50% of the questions on a test correct. If he had 10 questions correct out of the first 12, and $\frac{1}{4}$ of the remaining questions correct, how many questions were on the test?

- [A] 24 [B] 16 [C] 26 [D] 28

3. 080228a, P.I. A.N.5

There are 28 students in a mathematics class. If $\frac{1}{4}$ of the students are called to the guidance office, $\frac{1}{3}$ of the remaining students are called to the nurse, and, finally, $\frac{1}{2}$ of those left go to the library, how many students remain in the classroom?

4. 060328a, P.I. A.N.5

In a town election, candidates *A* and *B* were running for mayor. There were 30,500 people

eligible to vote, and $\frac{3}{4}$ of them actually

voted. Candidate *B* received $\frac{1}{3}$ of the votes cast. How many people voted for candidate *B*? What percent of the votes cast, to the nearest tenth of a percent, did candidate *A* receive?

5. 080029a, P.I. A.N.5

After an ice storm, the following headlines were reported in the *Glacier County Times*:
Monday: Ice Storm Devastates County - 8 out of every 10 homes lose electrical power
Tuesday: Restoration Begins - Power

restored to $\frac{1}{2}$ of affected homes

Wednesday: More Freezing Rain - Power lost by 20% of homes that had power on Tuesday

Based on these headlines, what fractional portion of homes in Glacier County had electrical power on Wednesday?

[1] C _____

[2] D _____

[3] 7, and appropriate work is shown or an appropriate explanation is given.

[2] Appropriate work is shown, but one computational error is made.

or [2] No answer or an incorrect answer is

found, but $\frac{1}{4}$ of 28 and $\frac{1}{3}$ of 21 are

calculated correctly to arrive at 14.

[1] Appropriate work is shown, but more than one computational error is made.

or [1] No answer or an incorrect answer is

found, but $\frac{1}{4}$ of 28 is calculated correctly to

arrive at 21.

or [1] 7, but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct

response that was obtained by an obviously

[3] incorrect procedure.

[3] 7,625 and 66.7%, and appropriate work is shown.

[2] Appropriate work is shown, but one computational error is made.

or [2] Only the number of votes for candidate B is found correctly, but appropriate work is shown.

[1] Appropriate work is shown, but more than one computational error is made.

or [1] Appropriate work is shown, but one conceptual error is made.

or [1] The percent of votes cast for candidate A is found correctly, but no further correct work is shown.

or [1] 7,625 and 66.7%, but no work is shown.

[0] 7,625 or 66.7%, but no work is shown.

or [0] A zero response is completely incorrect, irrelevant, or incoherent or is a

correct response that was obtained by an

[4] obviously incorrect procedure.

[3] $\frac{48}{100}$ or any equivalent fraction or 0.48 or

48% and appropriate work is shown, such as

on Monday $\frac{2}{10}$ have power, $\frac{8}{10}$ lost power;

on Tuesday $\frac{1}{2}(\frac{8}{10}) = \frac{4}{10}$ have been restored,

therefore $\frac{2}{10} + \frac{4}{10} = \frac{6}{10}$ have power; on

Wednesday $\frac{2}{10}$ lose power, therefore

$(\frac{8}{10})(\frac{6}{10}) = \frac{48}{100}$ have power.

[2] Appropriate work is shown, but one computational error is made, leading to a fractional answer.

or [2] One error of having or losing power is made, such as taking 20% of $\frac{4}{10}$.

[1] Appropriate work is shown, but multiple computational errors are made.

or [1] The correct answer is found, but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct

response that was obtained by an obviously

[5] incorrect procedure.