

TIMSS 2019 – Restricted Use Items – Data and Probability

Benchmark 2

Applying

Socks on Sale!
Advertisements

SALE <u>Store Q</u> 6 pairs of socks 24.30 zeds	SALE <u>Store R</u> 2 pairs of socks 8.40 zeds
SALE <u>Store S</u> 4 pairs of socks 16.40 zeds	SALE <u>Store T</u> 3 pairs of socks 12 zeds

Chen has seen these advertisements for socks and wants to pay the lowest price per pair of socks. Complete the table below to show Chen the price per pair of socks in each store. Store Q has been done for you.

Store	Price Per Pair
Q	4.05 zeds
R	
S	
T	

From which store should Chen buy her socks in order to pay the lowest price per pair?

Store: _____

Benchmark 3

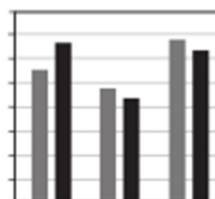
Applying

Lee wants to make three graphs to show information about his town.

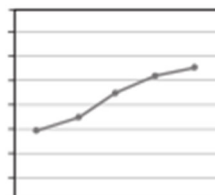
Which type of graph is best for each title?

Draw a line to match each title to the best type of graph.

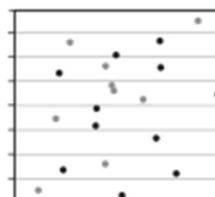
**Job Types of
Workers in Town**



**The Number of
Girls and Boys
Born Each Year**



**Town Population
Over Time**



Benchmark 3

Applying

A bag contains 24 marbles, some white and some black.

A marble is chosen at random, its color is noted, and the marble is placed back into the bag. This is done 120 times, and a white marble appears 70 times.

How many white marbles are likely to be in the bag?

- Ⓐ 7
- Ⓑ 10
- Ⓒ 12
- Ⓓ 14

Benchmark 4

Applying

A relay team for a 400 m race has 4 runners. They took 12 seconds, 13 seconds, 11 seconds, and 13 seconds, respectively, to complete their legs of the race.

A. What is the mean time it takes the runners to complete their legs?

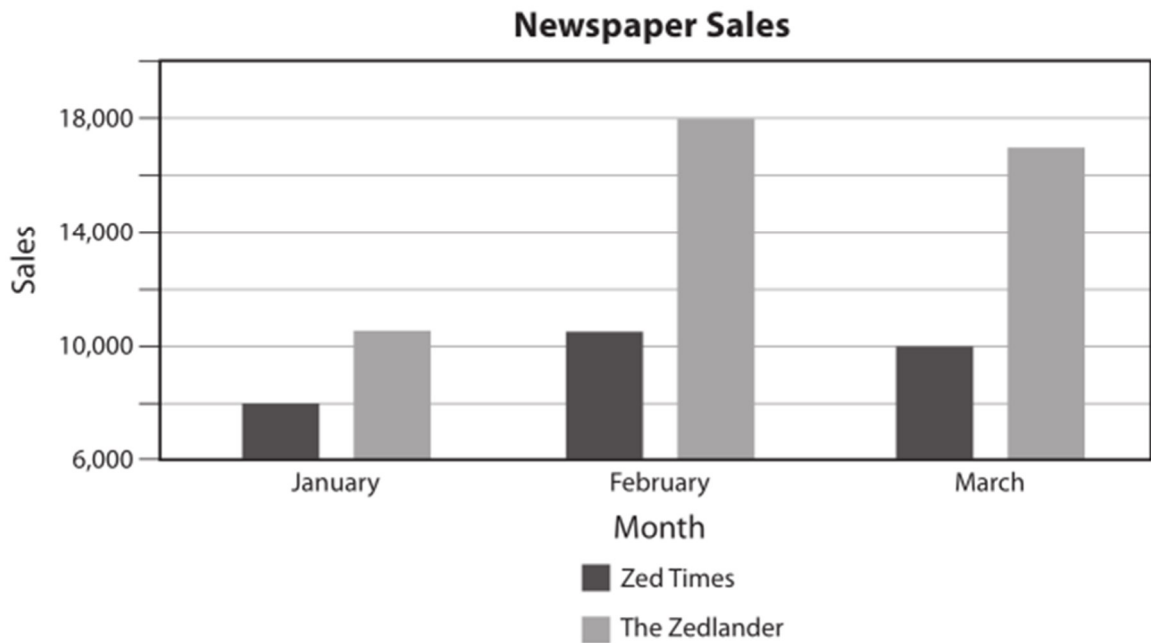
- (A) 13.0 sec.
- (B) 12.5 sec.
- (C) 12.25 sec.
- (D) 11.5 sec.

B. In the next race, 2 of the runners each improved their times by 2 seconds, and the other 2 had the same times as before. By how many seconds did the team's mean running time improve?

- (A) 0 sec.
- (B) 1 sec.
- (C) 2 sec.
- (D) 4 sec.

Reasoning

The graph shows the sales of two Zedland newspapers over three months.



Nancy claimed that sales for the Zedlander were more than double the sales for Zed Times each month.

Explain why Nancy's claim is **incorrect**.