

Cobb/Montford Mini Mu 2011: Round A

Multiple Choice: Do any scratch work on this test booklet. Identify the choice that best completes the statement or answers the question. Bubble your answer choice on the Scantron answer sheet. If none of the answers are correct, bubble choice “e”. NOTA means “None Of The Above” are correct.

1. Bowser is heating a pot of water in which to boil Mario. He kept track of the increasing temperature of water he was heating during a 20-minute time interval. Which would be the **best** graph to display the data?
a) bar graph b) pie chart c) line graph d) pictograph e) NOTA
2. Bowser’s house is in the shape of a cube with an edge measuring 5 meters. He is going to repaint the outside walls (including the roof). A gallon of paint will cover 50 square meters. Exactly how much paint does he need (without getting any extra or too little)?
a) 8 gallons b) 6 gallons c) 4 gallons d) 2 gallons e) NOTA
3. Toad is building a box for his garden in the shape of a rectangular prism. He is using 2 x 4’s for the frame. How many 2 x 4’s does he need?
a) 4 b) 6 c) 8 d) 12 e) NOTA
4. Professor E. Gadd divided 54 golden coins into 4 equal piles. When he finished, what was the remainder of coins not in a pile?
a) $\frac{2}{13}$ b) $\frac{4}{13}$ c) $\frac{4}{54}$ d) $\frac{2}{4}$ e) NOTA
5. Luigi found the product of two consecutive integers is 930. What are the two integers?
a) 22 and 23 b) 38 and 39 c) 18 and 19 d) 30 and 31 e) NOTA
6. Princess Peach is meeting Luigi at 9:30 a.m. In the morning she reads the newspaper for 14 minutes, showers and gets dressed in 24 minutes, and rides her bike to Luigi’s house in 18 minutes. What is the latest she can wake up and still be on time to meet Luigi?
a) 8:34 a.m. b) 8:42 a.m. c) 8:32 a.m. d) 8:48 a.m. e) NOTA
7. Yoshi is having a clearance sale on his island. Suppose a barrel of mushrooms is on sale at a 15% discount. If it normally sells for \$39.95, what is the sale price?
a) \$39.80 b) \$24.95 c) \$5.99 d) \$33.96 e) NOTA
8. Mario has calculated how much Power Ups cost. He made a table with his calculations.

| # of Power Ups | Gold Coins (\$) |
|----------------|-----------------|
| 1 | 24 |
| 2 | 31 |

| | |
|---|----|
| 3 | 38 |
| 4 | 45 |
| 5 | 52 |

How much would it cost for 13 Power Ups?

a) \$109 b) \$113 c) \$103 d) \$108 e) NOTA

9. Professor E. Gadd walks once around the perimeter of a square that has a side measuring 15 in. How far did he walk?

a) 75 in. b) 60 in. c) 62 in. d) 65 in. e) NOTA

10. The dragon Bowser is 246 in. long. How many ft long is he?

a) 19 b) 22 c) 20.5 d) 21.5 e) NOTA

11. Mario's Kart is traveling at an average rate of 60 mph. How far will the Kart travel in $3\frac{1}{4}$ hours?

a) 150 miles b) 180 miles c) 195 miles d) 210 miles e) NOTA

12. In Mushroom Kingdom, $\frac{3}{4}$ of the mushrooms are yellow. Of these, $\frac{1}{2}$ have brown spots. What fractional part of the Kingdom are yellow with brown spots??

a) $\frac{3}{8}$ b) $\frac{7}{8}$ c) $\frac{1}{4}$ d) $\frac{1}{2}$ e) NOTA

13. Baby Donkey Kong is hungry, so Mama Kong buys bananas. Bananas cost \$0.45 per pound. How much will it cost to buy $\frac{4}{5}$ of a pound of bananas?

a) \$0.18 b) \$0.27 c) \$0.36 d) \$0.40 e) NOTA

14. Mario, Luigi and Toad went together to pick Power Ups. They picked a total of $5\frac{1}{2}$ bushels of Power Ups.

If each person took home $\frac{1}{3}$ of the Power Ups, how many bushels did each person get?

a) $1\frac{1}{6}$ bushels b) $1\frac{5}{6}$ bushels c) $1\frac{3}{5}$ bushels d) $1\frac{1}{3}$ bushels e) NOTA

15. If Mario rolls a die 300 times, how many times would you expect him to roll a four?

a) 90 b) 75 c) 60 d) 50 e) NOTA

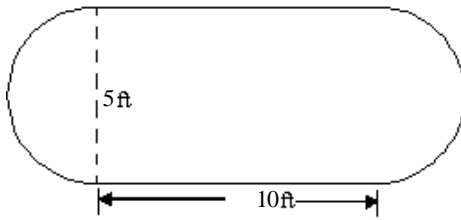
16. Luigi can do 35 jumps in one minute. How many can he do in 36 seconds?

a) 15 b) 18 c) 21 d) 24 e) NOTA

17. Every player at a Super Mario playing party drinks $1\frac{1}{2}$ cups of soda. How many people can be served from a bottle containing 12 cups?

a) 12 b) 9 c) 8 d) 6 e) NOTA

18. Princess Peach is serving lemonade at a party. How many 12 oz drinks can be poured from a $\frac{1}{2}$ gallon pitcher of lemonade?
a) $5\frac{1}{3}$ b) $5\frac{1}{4}$ c) 5 d) $4\frac{3}{4}$ e) NOTA
19. Mario and Luigi won twenty-two gold coins in all. Mario won two more than Luigi. What equation represents this situation? How many did Luigi win?
a) $2x - 2 = 22; x = 12$ b) $x + 2 = 22; x = 20$ c) $2x + 2 = 22; x = 10$ d) $2x + 2 = 22; x = 12$
e) NOTA
20. Toad can run 400 feet in 52.4 seconds. What is his speed (to the nearest tenth)?
a) 76 feet per second b) 0.76 foot per second c) 7.7 feet per second d) 7.6 feet per second
e) NOTA
21. Mario runs into a three-dimensional building that has five faces. What shape is the face on the bottom?
a) circle b) triangle c) square d) pentagon e) NOTA
22. Bowser is setting traps to fall on Mario. He can fit 12 spiked balls in 2 boxes, so he should be able to fit 78 spiked balls in x boxes. What proportion represents this situation? How many boxes, x , does he need?
a) $\frac{12}{2} = \frac{78}{x}; x = 13$ b) $\frac{2}{12} = \frac{78}{x}; x = 468$ c) $\frac{12}{2} = \frac{78}{x}; x = 12$ d) $\frac{12}{2} = \frac{x}{78}; x = 458$ e) NOTA
23. The temperature on Isle Delfino was -14° . Then an ice storm blew in and the wind dropped the temperature 11° . What was the temperature after the storm?
a) -25° b) -23° c) -3° d) -35° e) NOTA
24. At 4 pm Luigi, who is 6 feet tall, casts a 9-foot shadow. At the same time, Toad casts a 6-foot shadow. How tall is Toad?
a) 10.3 feet b) 4 feet c) 4.5 feet d) 3 feet e) NOTA
25. Princess Peach owns 120 pairs of shoes. Of those, 24 pairs are pink. What percent of her shoes are pink??
a) 20% b) 28.8% c) 500% d) 24% e) NOTA
26. Mario has a practice track behind his house for his Kart racing as shown in the diagram below. He is going to plant grass inside the track (to cushion his fall when he crashes). How many square feet (to the nearest tenth) of grass does he need?



- a) 128.5 ft^2 b) 34.6 ft^2 c) 44.6 ft^2 d) 69.6 ft^2 e) NOTA
27. Mario was walking along in the Mushroom Kingdom when he stumbled across a stranger named Zeno who was trying to cross a bridge that was 10 feet long. Zeno told Mario, "It seems as though I will never get to the end of the bridge. I started and got halfway across then stopped for breakfast. Then I crossed half the remaining distance and stopped for a nap. I crossed half the remaining and stopped for lunch. I went half of what was left and stopped for an afternoon siesta. Will I ever get to the other side?" How much farther does Zeno have to go?
- a) $\frac{5}{8}$ feet b) $1\frac{1}{4}$ feet c) $2\frac{1}{2}$ feet d) 5 feet e) NOTA
28. Bowser lives on an island that is made up of two kingdoms. In each kingdom there are three towns. In each town there are four castles. In each castle, there are five knights. Each knight carries six weapons. Each weapon has seven emeralds on it. Each emerald is surrounded by eight diamonds. These are the only diamonds on Bowser's island. How many diamonds are there?
- a) 40320 b) 40230 c) 5040 d) 4050 e) NOTA
29. Luigi found one gold coin on Monday. On Tuesday he found two more. Wednesday he found three more. Thursday he found four more. Friday he found five more. Saturday he found six more. Sunday he found seven more. Monday he found eight more. The pattern continued until twelve weeks had passed since he found the first coin. How many gold coins did Luigi find in all?
- a) 84 b) 3486 c) 3570 d) 5370 e) NOTA
30. Mario and Luigi synchronized their watches this morning so that they showed the exact correct time. Both watches run fast. Mario's watch gains one minute per hour, and Luigi's gains three minutes per hour. Now Mario's watch shows 11:53 a.m. and Luigi's shows 12:05 p.m. What is the correct time?
- a) 11:43 a.m. b) 11:47 a.m. c) 11:49 a.m. d) 11:46 a.m. e) NOTA

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Answer Section

MULTIPLE CHOICE

1. C
2. E
3. D
4. D
5. D
6. A
7. D
8. D
9. B
10. C
11. C
12. A
13. C
14. B
15. D
16. C
17. C
18. A
19. C
20. D
21. C
22. A
23. A
24. B
25. A
26. D
27. E
28. A
29. C
30. B