**Bucky the Badger: Task #1**

Every time the University of Wisconsin scores a point, their mascot Bucky the Badger does pushups that are equivalent to the new total points scored. If Wisconsin scored a field goal, Bucky would do 3 pushups. If they then scored a touchdown (and converted the extra point), he would do 10 pushups (3 + 7 = 10). If Wisconsin scored another touchdown, Bucky would have to do another 17 pushups (3 + 7 + 7 = 17).

Here is the recap of the scoring in a recent game:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1st Quarter | | 2nd Quarter | | 3rd Quarter | | 4th Quarter | |
|  | TD Wisconsin 7-0 |  | FG Tied 10-10 |  | TD Wisconsin 45-10 |  | FG Wisconsin 62-13 |
|  | TD Tied 7-7 |  | TD Wisconsin 17-10 |  | TD Wisconsin 52-10 |  | TD Wisconsin 69-13 |
|  | FG Wisconsin 10-7 |  | TD Wisconsin 24-10 |  | TD Wisconsin 52-13 |  | TD Wisconsin 76-13 |
|  |  |  | TD Wisconsin 31-10 |  | TD Wisconsin 59-13 |  | TD Wisconsin 76-20 |
|  |  |  | TD Wisconsin 38-10 |  |  |  | TD Wisconsin 83-20 |



= Wisconsin score TD = touchdown (and conversion, worth 7 points)

 FG = field goal (worth 3 points)

= Opponent score

Solve.

1. 7 + 3 = \_\_\_\_\_\_\_\_\_\_\_ 7. \_\_\_\_\_\_\_\_\_\_ + 7 = 52

2. \_\_\_\_\_\_\_\_\_\_ + 7 = 17 8. 52 + 7 = \_\_\_\_\_\_\_\_\_\_

3. 17 + \_\_\_\_\_\_\_\_\_\_ = 24 9. 3 + 59 = \_\_\_\_\_\_\_\_\_\_

4. 24 + 7 = \_\_\_\_\_\_\_\_\_\_ 10. \_\_\_\_\_\_\_\_\_\_ + 7 = 69

5. \_\_\_\_\_\_\_\_\_\_ + 7 = 38 11. 69 + \_\_\_\_\_\_\_\_\_\_ = 76

6. 38 + 7 = \_\_\_\_\_\_\_\_\_\_ 12. 76 + 7 = \_\_\_\_\_\_\_\_\_\_

**Task #2**

1. Watch the video and pay attention to the scoreboard at the end on how many the crowd count to.

<http://www.cleanvideosearch.com/media/action/yt/watch?videoId=WDmiuts9NYg>

2. Guess how many pushups Bucky had to do over the entire game.

3. Write down a number of pushups you know is too high. \_\_\_\_\_\_\_\_\_\_ Too low. \_\_\_\_\_\_\_\_\_\_

4. What information will you need to know to get an answer?

5. How many pushups did Bucky do over the course of the game? Show your method.

6. Wisconsin scored a touchdown, then a field goal, then 7 touchdowns in a row, then a field goal, followed by another 3 touchdowns. If you’re Bucky, would you rather your team score their field goals at the start of the game or at the end?

7. Who was the Wisconsin Badgers opponent for this game? Multiple choice.

(a) the University of Idaho

(b) the University of Illinois

(c) the University of Indiana

(d) the University of Iowa

8. What are some numbers of pushups that Bucky will never do in any game? We will simplify the matter: think in terms of touchdowns with the extra points (worth 7 points) and field goals (worth 3 points). In other words, assume no safeties, no missed extra points, and no 2-point conversions.

\*9. Write p(x), where x is the number of touchdowns Wisconsin scored in a game where they only score touchdowns, and p is the number of pushups Bucky will have done by the end of the game. Show your method of discovery.