

Preliminary Planning Sheet Grade 5 – Football Players

Domain(s)

Number and Operations in Base Ten

Standard(s)

5.NBT.A.4

Mathematical Practices

MP.1 MP.3 MP.4 MP.6

Major Underlying Mathematical Concepts

- Place value
- Comparison
- Rounding
- Addition
- Decimal notation

Problem Solving Strategies

- Model (manipulatives)
- Diagram/Key
- Table
- Number line

Formal Mathematical Language and Symbolic Notation

- Model
- Diagram/Key
- Table
- Number line
- Dozen
- Weight
- Pound, lb
- Number
- Second
- Greater than (>)/Less than (<)
- Decimal notation: $198.9 < 200.0$
- Ton
- Fraction
- $1/12$
- Total
- More/Less than
- More likely
- Most/Least
- Estimation
- Range
- Place value: ones, tens, hundreds, tenths, hundredths, thousandths
- Digit

Possible Solution(s)

Yes, the football players will be going to Pete's Restaurant for dinner. See table below for the players weights rounded to the nearest tenth and hundred.

Player	Weight in Pounds	Round to the Nearest 100	Rounded to the Nearest Tenth
1	162.090	200	162.1
2	182.300	200	182.3
3	139.865	100	139.9
4	197.500	200	197.5
5	199.980	200	200.0
6	194.231	200	194.2
7	200.900	200	200.9
8	145.700	100	145.7
9	181.200	200	181.2
10	149.970	100	150.0
11	198.909	200	198.9
12	157.310	200	157.3

$$200 + 200 + 200 + 200 + 200 = 1000$$

$$200 + 200 + 200 + 200 = 800$$

$$100 + 100 + 100 = 300$$

$$1000 + 800 + 300 = 2100 \text{ lbs}$$

Possible Connections

Below are some examples of mathematical connections. Your students may discover some that are not on this list.

- Player 7 is the heaviest.
- Player 3 is the lightest.
- Player 8 is the second lightest.
- There are a dozen football players.
- Only 2 players had a zero digit in the tenths place when their weight was rounded to the nearest tenth.
- Relate to a similar task and state a math link.
- The 12 players weighed a total of 2,109.955 pounds.
- The 12 players weighed more than a ton.
- A new player would most likely weigh between 150 and 200 pounds.