STATS CHALLENGE

PRESENTED BY slb

1. The Texans wide receiver is 68 inches tall. The Texans quarterback, his teammate, has a height in inches, h, which can be determined by solving the equation h − 5=68. What does the equation tell us about these two players' heights in relationship to each other? What is the quarterback's height?

<div align="center">

The Texans wide receiver is 5 inches shorter than the quarterback,
or the quarterback is 5 inches taller than the wide receiver.

$$h - 5 = 68$$
$$\underline{-5 \quad -5}$$
$$h = 73$$

The quarterback is 73 inches tall.

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2. A Texans running back rushed the ball for 122 plays and gained an average of 3.5 yards on each play. The equation below represents the relationship between t, the total number of yards rushed by the running back and his average gain for each play. How many yards rounded to the next whole number did the running back rush over the 122 plays?

$$\frac{t}{122} = 3.5 \qquad 122 \cdot \frac{t}{122} = 3.5 \cdot 122 \qquad t = 427 \text{ yards}$$

3. The Houston Texans Cheerleaders rehearse their routines each week. The number of hours they practice each week can be determined by solving the inequality 60r > 540. What is the minimum number of hours the Cheerleaders rehearse each week?

$$\frac{60r}{60} > \frac{540}{60} \qquad r > 9 \text{ hours}$$

4. A sack in football occurs when a defensive player tackles the quarterback for a loss of yards on a play. Hall of Fame defensive end Bruce Smith holds the current record for the most career sacks with 200. The inequality below represents the minimum number of sacks, s, a Texans player must make to break Bruce Smith's record. How many sacks must the player make to break the current record for most career sacks?

$$9 + s > 200$$

$$9 + s > 200$$
$$\underline{-9 \qquad -9}$$
$$s > 191$$

ENRICHMENT

Use a Stats Report to write a problem and a one-step equation or one-step inequality comparing the performance of the Texans to the performance of the opposing team. Trade problems with another student in the class and solve the problem.