Maths of the Day: Pitch Percentages

Video transcript for 'Pitch Percentages'

Gary Lineker: Football is full of numbers: eleven against eleven, four-four-two, goal tallies… So next time you watch a football match, look out for the hidden maths. Let's go over to the Kickabout studio to see what today's Maths of the Day topic is.

Ben Shires: Thanks Gary! Today's Maths of the Day topic is… pitch percentages. So what is a percentage? Think of any measurement or object split into one hundred equal bits. Each bit is one percent (or one-hundredth) of the whole thing.

So when footballers say 'I gave it one hundred and ten percent out there,' they're saying "I did the impossible!" because they gave it everything they had … and then some more! Back to you in the studio Gary.

Gary: Thanks Ben – let's see how good you are with percentages. Your star striker scores thirty goals in a season. You need to use percentages to work out how many of each goal type he scored.

Question one. If fifty percent of the goals were tap-ins how many goals was that?

OK, so that's fifty over one hundred, or one-half. They scored thirty goals in total and half of thirty is fifteen so the striker scored fifteen tap-ins.

Question two: twenty percent of the striker's goals were headers, so how many goals was that?

We would write that as twenty over one hundred which is the same as one-fifth. One-fifth of thirty is six, so they scored six goals from headers.

Ten percent were penalties, so how many times did the striker fool the keeper?

Ten percent is the same as one-tenth and one-tenth of thirty is three, so they scored three goals from penalties.

Question four: If the rest of the goals are from free kicks, how many did they score?

No need for percentages here! Just add up the first three answers - fifteen plus six plus three equals twenty-four – and take that away from thirty: six goals were from free kicks.

That's all from me for now. Keep practicing and you'll soon be one hundred percent successful!