ALGEBRA WORD PROBLEMS SHEET 3 (UK version)

Write the algebraic expression for each word problem. See if you can spot the trick problem that doesn’t need algebra!

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<thead>
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## ANSWERS

1) A chicken weighs \( t \) lb. It needs to be cooked for 20 minutes per lb plus an extra 15 minutes. What is the total cooking time?

\[
\text{Total cooking time} = 20t + 15 \text{ minutes}
\]

2) I put £100 in a savings account at \( v \)% yearly interest. How much money will I have in my account at the end of a year?

\[
\text{Money in account} = £100 + \frac{v}{100} \times 100 = £100 + v
\]

3) I get £\( m \) for my birthday. I spend half the money, but get given an extra £50. How much money do I have now?

\[
\text{Money left} = \frac{1}{2}m + 50
\]

4) A calculator costs £\( d \). A schools buys 90 calculators, and gets a £100 discount for bulk purchasing. How much did the school spend?

\[
\text{Total cost} = 90d - 100
\]

5) A square has sides of \( t \) cm. What is the area of the square?

\[
\text{Area} = t^2 \text{ cm}^2
\]

6) A rectangle measures \( w \) inches by \( h \) inches. What is the perimeter of the rectangle?

\[
\text{Perimeter} = 2(w+h) \text{ or } 2w + 2h \text{ inches}
\]

7) I have £\( g \). I spend half my money on a console game and £20 on a console controller. How much money do I have left?

\[
\text{Money left} = \frac{1}{2}g - 20
\]

8) I need to buy \( p \) pencils. I buy 4 packs of 7 pencils, but I still need a few more. How many pencils did I buy?

\[
\text{Pencils bought} = 4 \times 7 = 28 \text{ pencils (trick question)}
\]

9) A car travels 120 miles in \( h \) hours. What is the average speed in miles per hour?

\[
\text{Average speed} = \frac{120}{h}
\]