Functional Skills Mathematics | Level 1 & 2

Multiplication with Decimals

At both Level 1 and Level 2, you can be asked to solve multiplication problems with decimals. Let's have a look at a typical question.

The table below shows the prices and the ticket sales for the last match for a local netball team.

	Price	Ticket Sales
Juniors (under 16s)	£3.25	125
Adults	£6.99	237

Work out how much money the team made from ticket sales.

(3)

In order to do this question, you need a technique to accurately multiply with decimals. One method is the scoop method. With this you scoop out the decimal point and add it back in later. This way you do not have to worry about the decimal point when doing your multiplication.

Take a look at the following:

$$£2.17 \times 3 =$$

There are two digits after the decimal point. If we scoop it out, we have:

$$£217 \times 3 =$$

Let's work this out:

$$
\begin{array}{r}
217 \\
3 \\
\hline
651
\end{array}
$$

So the answer we get is 651. Now we can scoop the decimals back in.

Remember, we scooped out two digits, so we need to count two digits from the back.

Therefore, the answer is £6.51.

Worked Exam Question

Now we can go back and look at the exam question from before and work out the answer.

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Work out how much money the team made from ticket sales.

(3)

First, we are going to work out the value of sales from the juniors:

£3.25 x 125

Scoop out the decimal point:

325 x 125

$$
\begin{array}{r}
325 \\
125 \\
\hline
1625 \\
6500 \\
32500 \\
\hline
40625
\end{array}
$$

Remember to add the decimal point back in. In this case 2 scoops:

£406.25

Now, let's move on to the adults:

£6.99 x 237

Scoop out the decimal point:

699 x 237

699
237
4893
20970
139800
165663

Remember to add the decimal point back in. In this case 2 scoops:

£1656.63

The total sales are:

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  406.25
1656.63
2062.88


£2062.88
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Let's Practise (remember, no calculators 😊)

1. £4.25 x 3

2. £12.99 x 7

3. 0.49^2

4. 18.1 x 0.07

5. 7.29 x 1.3

6. 0.71^2

7. 6 friends buy a concert ticket each. Each ticket costs £26.75. How much does it cost them in total?

8. Sam fills up her car with petrol every week. The car takes 65 gallons. Last week petrol cost £1.27 per gallon. This week it has gone up to £1.40 per gallon. How much more does it cost Sam to fill up her car this week compared to last week.

9. Amir wants to buy a mobile phone. He has seen 2 offers for the same phone.

Offer A	**Offer B**
12 months at £24.99 per month	18 months at £16.99 per month

Amir thinks offer B will work out cheaper overall. Is he correct? Show how you know this.

10. Skye buys 17 fun building bricks online. Each brick cost 19 pence and delivery is an additional £0.05 per brick. What is the total cost of Skye's order?

Answers

1. £12.75
2. £90.93
3. 0.2401
4. 1.267
5. 9.477
6. 0.5041
7. £160.50
8. £8.45
9. NO, Offer A is £299.88, Offer B is £305.82
10. £4.08