

## Percentage Multiplier - Worksheet

### Skill

#### Group A - Find the decimal multiplier

- |           |           |           |
|-----------|-----------|-----------|
| 1) 26%    | 2) 29%    | 3) 39%    |
| 4) 54%    | 5) 58%    | 6) 17%    |
| 7) 9%     | 8) 4%     | 9) 5%     |
| 10) 13.2% | 11) 63.2% | 12) 30.5% |
- 

#### Group B - Calculate

- |                 |                 |                 |
|-----------------|-----------------|-----------------|
| 1) 24% of £300  | 2) 56% of £300  | 3) 38% of £300  |
| 4) 29% of 500kg | 5) 12% of 500kg | 6) 59% of 500kg |
| 7) 37% of 700m  | 8) 12% of 700m  | 9) 19% of 700m  |
| 10) 15% of £800 | 11) 22% of £800 | 12) 61% of £800 |
- 

#### Group C - Calculate

- |                |                  |                   |
|----------------|------------------|-------------------|
| 1) 6% of £320  | 2) 6.7% of £320  | 3) 16.7% of £320  |
| 4) 3% of £830  | 5) 3.7% of £830  | 6) 43.7% of £830  |
| 7) 7% of £120  | 8) 7.2% of £120  | 9) 37.2% of £120  |
| 10) 9% of £650 | 11) 9.3% of £650 | 12) 29.3% of £650 |

## Percentage Multiplier - Worksheet

### Applied

- 1) (a)** A holiday costs £300.  
A 15% deposit is needed.  
How much is this?

**(b)** A holiday costs £1200.  
An 18% deposit is needed.  
How much is this?
- 2) (a)** There are 450 children in a school.  
32% of them walk to school.  
How many children is this?

**(b)** There are 780 children in a school.  
65% of them take a bus to school.  
How many children is this?
- 3) (a)** There are 80 marks in a test.  
70% is needed to pass the test.  
How many marks is this?

**(b)** There are 60 marks in a test.  
80% is needed to pass the test.  
How many marks is this?
- 4) (a)** A tree is 165cm in height.  
Its height will increase by 8% over a year.  
By how much will its height increase over the year?

**(b)** A tree is 180cm in height.  
Its height will increase by 5.5% over a year.  
By how much will its height increase over the year?

## Percentage Multiplier - Exam Questions

- 1) Calculate 16% of 340kg. ....  
(1 mark)
- 

- 2) A holiday costs £845.  
A deposit of 17% is required.  
  
How much is the deposit? .....  
(2 marks)
- 

- 3) Amelia works for 16 hours a week.  
She earns £17 per hour.  
She receives a pay increase of 4%.  
  
By how much does her new weekly wage increase? .....  
(3 marks)
- 

- 4) In a test, Section A has 70 marks and Section B has 40 marks.  
James scores 60% in Section A and 85% in Section B.  
To pass, he needs 70% of the total marks.  
  
Does he pass? .....  
You must show your working. (4 marks)

## Percentage Multiplier - Answers

	Question	Answer
	Skill Questions	
Group A	Find the decimal multiplier <b>1)</b> 26% <b>2)</b> 29% <b>3)</b> 39% <b>4)</b> 54% <b>5)</b> 58% <b>6)</b> 17% <b>7)</b> 9% <b>8)</b> 4% <b>9)</b> 5% <b>10)</b> 13.2% <b>11)</b> 63.2% <b>12)</b> 30.5%	<b>1)</b> 0.26 <b>2)</b> 0.29 <b>3)</b> 0.39 <b>4)</b> 0.54 <b>5)</b> 0.58 <b>6)</b> 0.17 <b>7)</b> 0.09 <b>8)</b> 0.04 <b>9)</b> 0.05 <b>10)</b> 0.132 <b>11)</b> 0.632 <b>12)</b> 0.305
Group B	Calculate <b>1)</b> 24% of £300 <b>2)</b> 56% of £300 <b>3)</b> 38% of £300 <b>4)</b> 29% of 500kg <b>5)</b> 12% of 500kg <b>6)</b> 59% of 500kg <b>7)</b> 37% of 700m <b>8)</b> 12% of 700m <b>9)</b> 19% of 700m <b>10)</b> 15% of £800 <b>11)</b> 22% of £800 <b>12)</b> 61% of £800	<b>1)</b> £72 <b>2)</b> £168 <b>3)</b> £114 <b>4)</b> 145kg <b>5)</b> 60kg <b>6)</b> 295kg <b>7)</b> 259m <b>8)</b> 84m <b>9)</b> 133m <b>10)</b> £120 <b>11)</b> £176 <b>12)</b> £488

## Percentage Multiplier - Answers

<b>Group C</b>	<b>Calculate</b> <b>1)</b> 6% of £320 <b>2)</b> 6.7% of £320 <b>3)</b> 16.7% of £320 <b>4)</b> 3% of £830 <b>5)</b> 3.7% of £830 <b>6)</b> 43.7% of £830 <b>7)</b> 7% of £120 <b>8)</b> 7.2% of £120 <b>9)</b> 37.2% of £120 <b>10)</b> 9% of £650 <b>11)</b> 9.3% of £650 <b>12)</b> 29.3% of £650	<b>1)</b> £19.20 <b>2)</b> £21.44 <b>3)</b> £53.44 <b>4)</b> £24.90 <b>5)</b> £30.71 <b>6)</b> £362.71 <b>7)</b> £8.40 <b>8)</b> £8.64 <b>9)</b> £44.64 <b>10)</b> £58.50 <b>11)</b> £60.45 <b>12)</b> £190.45
----------------	---	---

## Percentage Multiplier - Answers

	Question	Answer
	Applied Questions	
<b>1)</b>	<p><b>a)</b> A holiday costs £300 A 15% deposit is needed. How much is this?</p> <p><b>b)</b> A holiday costs £1200. A 18% deposit is needed. How much is this?</p>	<p><b>a)</b> £45</p> <p><b>b)</b> £216</p>
<b>2)</b>	<p><b>a)</b> There are 450 children in a school. 32% of them walk to school. How many children is this?</p> <p><b>b)</b> There are 780 children in a school. 65% of them take a bus to school. How many children is this?</p>	<p><b>a)</b> 144 children</p> <p><b>b)</b> 507 children</p>
<b>3)</b>	<p><b>a)</b> There are 80 marks in a test. 70% is needed to pass the test. How many marks is this?</p> <p><b>b)</b> There are 60 marks in a test. 80% is needed to pass the test. How many marks is this?</p>	<p><b>a)</b> 56 marks</p> <p><b>b)</b> 48 marks</p>
<b>4)</b>	<p><b>a)</b> A tree is 165cm in height. Its height will increase by 8% over a year. By how much will its height increase over the year?</p> <p><b>b)</b> A tree is 180cm in height. Its height will increase by 5.5% over a year. By how much will its height increase over the year?</p>	<p><b>a)</b> 13.2cm</p> <p><b>b)</b> 9.9cm</p>

## Percentage Multiplier - Mark Scheme

	Question	Answer	
	Exam Questions		
1)	Calculate 16% of 340kg.	54.4kg	(1)
2)	A holiday costs £845. A deposit of 17% is required.  How much is the deposit?	$0.17 \times 845$	(1)
		£143.65	(1)
3)	Amelia works for 16 hours a week. She earns £17 per hour. She receives a pay increase of 4%.  By how much does her new weekly wage increase?	$16 \times 17$	(1)
		$272 \times 0.04$	(1)
		£10.88	(1)
4)	In a test, Section A has 70 marks and Section B has 40 marks. James scores 60% in Section A and 85% in Section B.  To pass, he needs 70% of the total marks.  Does he pass? You must show your working.	$70 \times 0.6 = 42$ <b>or</b>	(1)
		$40 \times 0.85 = 34$	
		$42 + 34 = 76$	(1)
		$110 \times 0.7 = 77$	(1)
		for No and 76 and 77	(1)

***Do you have KS4 students who need additional support in maths?***

Our specialist tutors will help them develop the skills they need to succeed at GCSE in weekly one to one online revision lessons. Trusted by secondary schools across the UK.

Visit [thirdspacelearning.com](https://thirdspacelearning.com) to find out more.