Percentages - Worksheet

Skill

Group A - Percentage of an amount

Work out:

1) 10% *of* £200

2) 1% *of* £200

3) 11% *of* £200

4) 10% *of* 300 *g*

5) 1% *of* 300 *g*

6) 11% *of* 300 *g*

7) 10 % *of* 700 *km*

8) 1% *of* 700 *km*

9) 11% *of* 700 *km*

10) 10% *of* £80

11) 1% *of* £80

12) 11% *of* £80

Group B - Percentage multiplier

What is the decimal multiplier for these?

1) 50%

2) 57%

3) 59%

4) 70%

5) 72%

6) 71%

7) 30%

8) 32%

9) 38%

10) 110%

11) 114%

12) 119%

Group C - Percentage change

Work out the percentage change:

1) 20 *from* 50

2) 30 *from* 50

3) 60 *from* 50

4) 10 *from* 40

5) 30 *from* 40

6) 48 *from* 40

7) 15 *from* 20

8) 4 *from* 20

9) 14 *from* 20

10) 27 *from* 30

11) 36 *from* 30

12) 45 *from* 30

Percentages - Worksheet

Applied

1) **(a)** A cereal bar is 30 g.

23% of the cereal bar is fibre.

How grams of fibre are in the cereal bar?

(b) A cereal bar is 40 g.

41% of the cereal bar is carbohydrates.

How grams of carbohydrates are in the cereal bar?

2) **(a)** My salary is £28,000.

Next year I am getting a 3% pay rise.

Work out my new salary for next year.

(b) Frank earns £25.50 per hour.

He will be getting a 6% pay rise.

Calculate how much Frank will now earn per hour.

3) **(a)** A chocolate bar weighs 30 g.

It is decided that its weight will be decreased by 5%.

Work out the new weight of the chocolate bar.

(b) A packet of biscuits weighs 120 g.

It is decided that its weight will be decreased by 8%.

Work out the new weight of the packet of biscuits.

4) **(a)** A coat costs £45 after a price reduction of 10%.

What was the original price?

(b) A suit costs £160 after a price reduction of 20%.

What was the original price?

thirdspacelearning.com   Helping schools close the maths attainment gap through targeted one to one teaching and flexible resources

2

Percentages - Exam Questions

1)   Work out 40% of £90.   …………………

(2 marks)

---

2)   Matt invests £7000 for 5 years.   …………………
With a simple interest of 4% per year.   **(3 marks)**

Work out the total interest Matt gets.

---

3)   Last year Jan paid £460 for house insurance.   …………………
This year Jan has to pay £391 for house insurance.   **(3 marks)**

Calculate the percentage change in their house insurance.

THIRD SPACE
LEARNING

Percentages - Answers

	Question	**Answer**
Group A	Skill Questions	
	Work out: **1)** 10% of £200 **2)** 1% of £200 **3)** 11% of £200 **4)** 10% of 300 g **5)** 1% of 300 g **6)** 11% of 300 g **7)** 10 % of 700 km **8)** 1% of 700 km **9)** 11% of 700 km **10)** 10% of £80 **11)** 1% of £80 **12)** 11% of £80	**1)** £20 **2)** £2 **3)** £22 **4)** 30 g **5)** 3 g **6)** 33 g **7)** 70 km **8)** 7 km **9)** 77 km **10)** £8 **11)** £0.80 **12)** £8.80
Group B	What is the decimal multiplier for these? **1)** 50% **2)** 57% **3)** 59% **4)** 70% **5)** 72% **6)** 71% **7)** 30% **8)** 32% **9)** 38% **10)** 110% **11)** 114% **12)** 119%	**1)** 0.5 **2)** 0.57 **3)** 0.59 **4)** 0.7 **5)** 0.72 **6)** 0.71 **7)** 0.3 **8)** 0.32 **9)** 0.38 **10)** 1.1 **11)** 1.14 **12)** 1.19

thirdspacelearning.com   Helping schools close the maths attainment gap through targeted one to one teaching and flexible resources

4

Percentages - Answers

	Question	**Answer**
Group C	Skill Questions	
	Work out the percentage change: **1)** 20 *from* 50 **2)** 30 *from* 50 **3)** 60 *from* 50 **4)** 10 *from* 40 **5)** 30 *from* 40 **6)** 48 *from* 40 **7)** 15 *from* 20 **8)** 4 *from* 20 **9)** 14 *from* 20 **10)** 27 *from* 30 **11)** 36 *from* 30 **12)** 45 *from* 30	**1)** 60% *decrease* **2)** 40% *decrease* **3)** 20% *increase* **4)** 75% *decrease* **5)** 25% *decrease* **6)** 20% *increase* **7)** 25% *decrease* **8)** 80% *decrease* **9)** 30% *decrease* **10)** 10% *decrease* **11)** 20% *increase* **12)** 50% *increase*

Percentages - Answers

	Question	Answer
	Applied Questions	
1)	**(a)** A cereal bar is 30 g. 23% of the cereal bar is fibre. How grams of fibre are in the cereal bar?	**(a)** 6.9 g
	(b) A cereal bar is 40 g. 41% of the cereal bar is carbohydrates. How grams of carbohydrates are in the cereal bar?	**(b)** 16.4 g
2)	**(a)** My salary is £28,000. Next year I am getting a 3% pay rise. Work out my new salary for next year.	**(a)** £28,840
	(b) Frank earns £25.50 per hour. He will be getting a 6% pay rise. Calculate how much Frank will now earn per hour.	**(b)** £27.03
3)	**(a)** A chocolate bar weighs 30 g. It is decided that its weight will be decreased by 5%. Work out the new weight of the chocolate bar.	**(a)** 28.5 g
	(b) A packet of biscuits weighs 120 g. It is decided that its weight will be decreased by 8%. Work out the new weight of the packet of biscuits.	**(b)** 110.4 g
4)	**(a)** A coat costs £45 after a price reduction of 10%. What was the original price?	**(a)** £50
	(b) A suit costs £160 after a price reduction of 20%. What was the original price?	**(b)** £200

thirdspacelearning.com   Helping schools close the maths attainment gap through targeted one to one teaching and flexible resources

6

Percentages - Mark Scheme

	Question	Answer	
	Exam Questions		
1)	Work out 40% of £90.	10% is 9, $4 \times 9 =$ (1 mark) £36 (1 mark)	**(2)**
2)	Matt invests £7000 for 5 years with a simple interest rate of 4% per year. Work out the total interest Matt gets.	$7000 \times 0.04 = 280$ (1 mark) $280 \times 5 =$ (1 mark) £1400 (1 mark)	**(3)**
3)	Last year Jan paid £460 for house insurance. This year Jan has to pay £391 for house insurance. Calculate the percentage change in their house insurance.	$460 - 391 = 69$ (1 mark) $\dfrac{69}{460} \times 100 =$ (1 mark) 15% (1 mark)	**(3)**