Halves and quarters: matching activity

Use your understanding of halves, quarters and their percent equivalents to **match up the items below**.

Half of £20:	
50% of £50:	
A quarter of a weekly rental of £200:	
25% of a monthly income of £1,500:	
The discount on a sofa costing £1,400 in a 25% off sale:	
A restaurant bill of £30 shared equally between 2 people:	
50% deposit on a DVD player costing £89:	
Three quarters of a monthly housekeeping budget of £240:	

£10	£25	£50	£375
£44.50	£180	£15	£350

Finding percentage parts: amounts of money

Have a go at these questions:

1. A portable CD player costs £48.

   How much is a payment of 25% of the cost? _____

2. A digital camera costs £89.

   How much is a 10% deposit? _____

3. A TV costs £245. How much is a 20% payment? _____

4. A sofa costs £360. How much is the 5% interest? _____

5. There is a possible mark of 60 points in an exam.

    You need 70% to get an A grade. How many points do you need? _____

Find the missing numbers:

Example: 10% of _____ is 30p.

10% is a tenth. So 30p is a tenth of something. Multiply 30 by 10 to get the full amount.

30 × 10 = 300p = £3.00.

Now find these other missing numbers:

6. 10% of _____ = £2.

7. 50% of _____ = £8.

8. 25% of _____ = 20p.

9. 20% of _____ = £3.

10. 75% of _____ = £30.

Check your answers with the answer sheet.

Sale time: filling in the blanks

Fill in the blanks with the new prices of these sale items.

Home Supplies Centre

Save on selected items

BBQ charcoal 10% off: was £8 - now only _____

Outdoor chairs 20% off: were £12 - now only _____

Sunshades 50% off: were £10 - now only _____

Sleepeasy Bed Company

Easter Sale - 25% off

25% off all double beds until May Bank holiday

'Princess' double deluxe: was £200 - SALE price = _____

'Pharoah's Dream' king size: was £400 - SALE price = _____

GARDEN SOLUTIONS LTD

Bank holiday offers!!!

Shrubs 25% off: were £20 - now £_____

10% off planters: were £15 - now £_____

Compost 20% off: was £5 - now £_____

Now check your answers with the answer sheet.

Skillswise

Percentage increases on a menu

1. Use the menu to complete the bills below for the three meals.

Menu

Starters: Pâté (£3.50), Soup (£3), Melon (£2)

Main meals: Fish and chips (£5), Lasagne (£7.50),
Vegetable chilli (£5), Roast lamb (£8).
All main meals come with vegetables and chips, roast or mashed potatoes.

Puddings: Apple pie (£3.50), Cheesecake (£4), Ice cream (£2)

Drinks: Tea (£1.50), Coffee (£2), Orange juice (£1.50)

(**10% service charge added to bills**)

Meal 1	**£**		**Meal 2**	**£**		**Meal 3**	**£**
Pâté	3.50		Soup	3.00		Melon	2.00
Lasagne	7.50		Fish/chips	5.00		Roast lamb	8.00
Cheesecake	4.00		Ice cream	2.00		Apple pie	3.50
Coffee	2.00		Tea	1.50		Coffee	2.00
Subtotal	_____		Subtotal	_____		Subtotal	_____
10% charge	_____		10% charge	_____		10% charge	_____
Total	_____		**Total**	_____		**Total**	_____

2. The restaurant has decided to increase some of its prices. Main meals have been raised by 25%, drinks by 20%, puddings by 10%. Work out new prices for these items:

Item	Original price	% increase	Price increase	New price
Cheesecake				
Fish and chips				
Roast lamb				
Tea				
Apple pie				

Now check your answers with those on the answer sheet.

1. Calculate 7% of 340

....
(2)

2. Find 56% of $8200

$..........................
(2)

3. Calculate 83% of 9000

....
(2)

4. Calculate 3.5% of 140g

..........................g
(2)

5. Find 18.2% of £25,000

£..........................
(2)

6.   Increase £2400 by 9%

£........................

(2)

7.   Increase 40 miles by 43%

........................miles

(2)

8.   Decrease 18000 by 6%

....

(2)

9.   Decrease 712kg by 24%

........................kg

(2)

10.   Increase 7900 by 37.4%

....

(2)

11.   Oliver's salary is £18,000 and he is due to get an increase of 4%.
       How much will this increase be?

                                                                          £.........................
                                                                                              (2)

_____

12.   A new TV is priced at £320
       In a sale it is reduced by 45%

       Calculate the sale price

                                                                          £.........................
                                                                                              (3)

_____

13.   Joanne sees this special offer in a shop.

                    ┌───┐
                    │   Special Offer   │
                    │   │
                    │   iPod   £189   │
                    │   Headphones   £25   │
                    │   Buy both items and receive a 4% discount │
                    └───┘

       Joanne buys both items.

       How much does she pay?

                                                                          £.........................
                                                                                              (3)

14. Barry earns £1300 a month. He spends 30% of this money on rent and 12% on bills.

    How much of the £1300 has he left?

    £........................
    (3)

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15. A carton of orange juice contains 540ml.
    A special offer carton contains an extra 35%.

    How many millilitres of orange juice are in the special offer carton?

    ....ml
    (3)

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16. There are 52800 fans at a football match between Rovers and City.
    37% of the fans support Rovers.
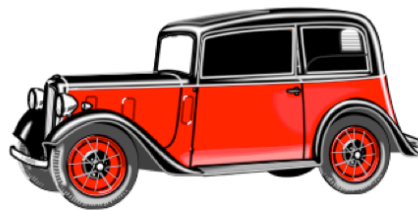
    How many fans at the match support City?

    ....
    (3)

17. In 2000 the population of a country was 4,580,000
    By 2015, the population had increased by 18%

    Work out the population in 2015

    ....
    (3)

18.

    A vintage car was bought for £9,400
    Since then the value of the car has increased by 29%

    Calculate the value of the car.

    £.........................
    (3)

21.   Georgina needs to buy petrol for her car.

Her car can hold 70 litres of petrol.
There are already 20 litres of petrol in the tank.
Georgina is going to fill up the petrol tank.

The price of petrol is 115.9p per litre
Georgina has a voucher that gives her 3% off the price of petrol.

How much does Georgina have to pay for the petrol?

£..........................

(5)

Fractions	Decimals	Percentages
$\dfrac{1}{1}$	1.00	100%
$\dfrac{1}{2}$		
	0.25	
		75%
$\dfrac{1}{5}$		
	0.4	
		10%
	0.67	

Fractions	Decimals	Percentages
$\dfrac{110}{100}$	1.1	110%
$2\dfrac{1}{2}$		
	0.333	
		41%
		42%
	1.75	
$\dfrac{31}{32}$		
		22%

Converting Between Fractions, Decimals and Percentages

Name :   Mark :   /16   %

1) Convert to a decimal   [6]

    a) $\dfrac{3}{10}$

    b) $\dfrac{3}{25}$

    c) 94%

    d) 153%

    e) 41.1%

    f) 81.6%

2) Convert to a fraction, reduced to lowest terms   [3]

    a) 0.25

    b) 0.86

    c) 80%

3) Convert to a percentage   [6]

    a) 0.88

    b) 2.69

    c) 0.518

    d) 0.511

    e) $\dfrac{4}{5}$

    f) $\dfrac{3}{4}$

4) Convert to a fraction: [1]

    37%

Solutions for the assessment Converting Between Fractions, Decimals and Percentages

1) a) 0.3

b) 0.12

c) 0.94

d) 1.53

e) 0.411

f) 0.816

2) a) $\frac{1}{4}$

b) $\frac{43}{50}$

c) $\frac{4}{5}$

3) a) 88%

b) 269%

c) 51.8%

d) 51.1%

e) 80%

f) 75%

4) $\frac{37}{100}$