A | Answer

1. $7006 - 6007 =$ ... 999
2. $(85 \times 3) + (7 \times 85) =$ ... 850
3. $1.7 \times 10^4 =$ ... 17000
4. Choose one from this list
   to fill the gap:
   $1\frac{3}{4}, 180\%, \frac{17}{10}$ ... $1.7 < 1\frac{3}{4} < \frac{45}{25}$
5. What is 7.5% of 4 as a decimal? ... 0.3
6. $3 \times (28 \div 2) =$ ... 42
7. $\sqrt{64} + 5^2 =$ ... 33
8. Approximate 3082 to the
   nearest 100. ... 3100
9. Estimate to the nearest ten.
   5.06×9.88 ... 50
10. If $h = 13$, $k = 7$, find the value of
    $(h + k) \times (h - k)$. ... 120
11. $a + 5 = 0$ ... so $a =$ ... −5
12. Which three of this set of numbers
    are prime? {1, 2, 5, 9, 15, 21, 23} ... 2 5 23

B | Answer

1. $£15.05 \div 7 =$ ... £2.15
2. A camera costing £85 is reduced
   by £17. What % saving is this? ... 20%
3. Change 3.542 tonnes to kilograms. ... 3542kg
4. $3.2t - 1455kg$ = 1t ... 745kg
   = ... 1.745t
5. If 14.11.2011 was a Thursday, what
   day was it on 22.11.2011? ... Friday
6. An aeroplane travels 1km in 5sec.
   Find its speed in kilometres per hour. ... 720km/h
7. The circumference of a circle is 314mm.
   Find the diameter.
   $\pi = 3.14$ ... 100mm
8. An isosceles triangle is drawn so that
   the largest angle equals the sum of
   the other two angles. How big is
   the largest angle? ... 90°
9. The word EXIT is painted on the inside
   of a glass door. Which letters look the
   same from the outside of the door? ... X I T
10. Three TV programmes last 25min,
    55min and 1h 35min respectively.
    What is the total of all three
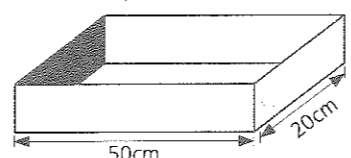   programmes to the nearest hour? ... 3h

C | Answer

Hamza owns a music shop. The supplier that Hamza uses to
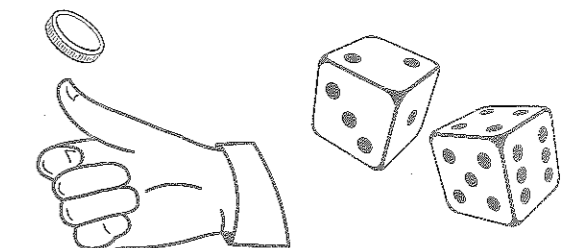buy stock for his shop has increased its prices by 15%.

Musical instruments	Before 15% increase
Drum kit	£600.00
Piano	£1400.00
Electric guitar	£1000.00
Trumpet	£300.00
Violin	£200.00
Saxophone	£400.00
Accessories	
Speakers	£150.00
Channel mixer	£350.00
Plectrums (per ten)	£2.50
Sheet music	
Pupil book	£5.00
Sheet music album	£18.00

1. How much must be added to
   the cost of an electric guitar? ... £150
2. What is the increase on a drum kit? ... £90
3. What is the cost of a saxophone,
   including the 15% price increase? ... £460
4. What will it cost Hamza to order
   three drum kits and two electric
   guitars, including the price increase? ... £4370
5. What is the cost of ordering 200
   plectrums and 10 pupil books at
   the new increased price? ... £115.00
6. What is the new cost of two
   speakers and a channel mixer? ... £747.50

When Hamza sells his goods he adds a further 20% profit
to the price he paid to the supplier.

7. What profit is added to the cost
   of a saxophone? ... £92
8. What is the selling price of a
   saxophone, including profit? ... £552
9. What profit does Hamza make
   by selling a violin? ... £46
10. What is the selling price of a piano? ... £1932
11. What is the profit on an electric
    guitar with a speaker? ... £264.50
12. What is the selling price of a
    sheet music album? ... £24.84

A | Answer

1. $1760 \times 11 =$ ... 19360
2. $155 \div (15 - 5) =$ ... 15 r 5
3. $2.05 \times 10^2 =$ ... 205
4. Write $\frac{49}{3}$ as a mixed number. ... $16\frac{1}{3}$
5. Write $\frac{3}{20}$ of 5 as a decimal. ... 0.75
6. Divide two-thirds by eight. ... $\frac{1}{12}$
7. $(6.3 \times 1.7) + (0.3 \times 6.3) =$ ... 12.6
8. Approximate 3.082 to one
   decimal place. ... 3.1
9. Estimate to the nearest ten.
   16.048×5.101 ... 80
10. If $p = 2.5$ and $q = 2$, find the value
    of $\frac{p}{q}$. ... 1.25
11. $2x + 3x = 15$ ... so $x =$ ... 3
12. Write down the prime factors of 30
    (i.e. those prime numbers which will
    divide exactly into 30). ... 2 3 5

B | Answer

1. $£3.45 \times 6 =$ ... £20.70
2. I buy a poster for £2.60 and sell it for
   £3.20. What is my profit? ... 60p
3. Change $2\frac{1}{2}$ km to metres. ... 2500m
4. $2.5l - 955ml$ = 1l ... 545ml
   = ... 1.545l
5. If 23.06.2014 was a Monday, what
   date will it be on Thursday of the
   following week? ... 03.07.2014
6. A car travels 30km in 36min. Find its
   speed in kilometres per hour. ... 50km/h
7. Find the circumference of a circle with
   radius 10cm.
   $\pi = 3.14$ ... 62.8cm
8. When full, the tank holds 10000cm³.

   a Find its depth. ... a ... 10cm
   b How many litres does
      it hold when full? ... b ... 10l
9. Which letter of the word LAUGH has
   an axis of symmetry which is neither
   vertical nor horizontal? ... L
10. If two dozen pencils cost £1.95 find
    the cost of one pencil to the
    nearest penny. ... 8p

C | Answer

Sairah and Jamie are playing a game with two dice and a
coin. First they throw the dice and note down the numbers.
Then they toss the coin. If the coin falls heads they add the
two numbers from the dice. If the coin falls tails they multiply
together the numbers from the dice. For example, throws of
3 and 2 on the dice will give a score of 3 + 2 = 5 if the coin
falls heads and 3 × 2 = 6 if the coins falls tails. The first two
lines of the table show more examples. Now fill in the blanks
on the other lines.

	Throw 1	Throw 2	Heads	Tails
	2	5	7	10
	1	1	2	1
1	6	1	7	6
2	4	2	6	8
3	3	6	9	18
4	5	4	9	20
5	2	6	8	12
6	6	6	12	36
7	5	5	10	25
8	2	2	4	4
9	4	4	8	16

10. What is the largest score that can
    be made? ... 36
11. What is the largest possible score
    if the coin falls heads? ... 12
12. If they had another go and the
    score was 15, how did the coin fall,
    heads or tails? ... tails