



DAME ALICE OWEN'S  
SCHOOL  
est. 1613

## Practice Test 4

These questions contain three pairs of words.

Find the word that completes the last pair of words in the **same way** as the other two pairs and mark it on your answer sheet.

**Example** (hind hid) (cosy coy) (pain [ ? ]) ( )

- A** pin      **B** pan      **C** nap      **D** nip      **E** in

## **Answer pan**

**Solution** In the first pair of words, 'hid' is made from the first, second and fourth letters of 'hind'. Likewise, in the second pair of words, 'coy' is made from the first, second and fourth letters of 'cosy'. If you apply the same rule to the third pair of words, you get the answer 'pan'.

1

(bonnets ten)      (relying nil)      (density [ ? ])

- A** nit      **B** tin      **C** ten      **D** net      **E** tie

2

(alleged gel)              (prepare ape)              (organic [ ? ])

- A** per **B** cap **C** pag **D** cin **E** rag

3

(bladder dab) (educate cue) (wrapped [ ? ])

- A** **and** **B** **thus** **C** **and** **D** **now** **E** **now**

4

(braiding bid) (sometime sit) (remedies [ ? ])

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5

(notebook boot) (ladybird hard) (puncture [ ? ])

6

(suburban bran) (musician scan) (canoeist [ ? ])

7

(prophecy, hon)      (thoughts, get)      (weakling, [3])

- A** [low]      **B** [low]      **C** [low]      **D** [high]      **E** [high]

In these questions, find the **two** words, **one** from each group, that go together to make one correctly spelt word without changing the order of the letters.

The word from the first group will always come first.

Mark **both** words on your answer sheet.

**Example** (con par four) (ride text ward)

- |   |      |   |      |
|---|------|---|------|
| A | con  | X | ride |
| B | par  | Y | text |
| C | four | Z | ward |

## Answer con text

**Solution** When put together, 'con' from the first group of words and 'text' from the second group of words make the word '**context**'. These are the only two words that together make one correctly spelt word.

8 (car all lag) (owed goon tune)

- |   |     |   |      |
|---|-----|---|------|
| A | car | X | owed |
| B | all | Y | goon |
| C | lag | Z | tune |

9 (are do sup) (port mane line)

- |   |     |   |      |
|---|-----|---|------|
| A | are | X | port |
| B | do  | Y | mane |
| C | sup | Z | line |

10 (nigh few war) (art song time)

- |   |      |   |       |
|---|------|---|-------|
| A | nigh | X | art   |
| B | few  | Y | song  |
| C | war  | Z | timee |

11 (rest mop some) (any ore sweep)

- |   |      |   |       |
|---|------|---|-------|
| A | rest | X | any   |
| B | mop  | Y | ore   |
| C | some | Z | sweep |

12

(spears par meat) (rye mint take)

- A spears      X rye  
B par      Y mint  
C meat      Z take

13

(show mar hide) (down anger in)

- A show      X down  
B mar      Y anger  
C hide      Z in

14

(arc rid con) (sedate hive sentry)

- A arc      X sedate  
B rid      Y hive  
C con      Z sentry

In each question, find the number that continues the series in the most sensible way and mark it on your answer sheet.

**Example** 12 10 8 6 [?]

- A 4      B 6      C 8      D 10      E 2

**Answer** 4

**Solution**

In this series, you **subtract 2** to get the next term. Therefore, the next number in the series is **4**. For other series, you might have to perform a different sort of arithmetic operation (+, -, ×, ÷). There might also be two series involved: the first comprising the 1st, 3rd, 5th number, etc. and the second comprising the 2nd, 4th, 6th number, etc.

15

32 26 20 14 8 [?]

- A 4      B 2      C 0      D -2      E 14

16

40 44 49 55 62 [?]

- A 66      B 69      C 54      D 70      E 80

17

12 13 15 19 27 43 [?]

- A 85      B 59      C 51      D 45      E 75

18

7 10 4 9 3 10 4 13 7 18 12 [?]

- A 19      B 6      C 30      D 25      E 23

19

1    4    13    40    121    [?]

A 363    B 336    C 364    D 463    E 374

20

38    31    26    23    [?]

A 24    B 22    C 26    D 23    E 20

21

1    2    5    26    [?]

A 677    B 180    C 31    D 53    E 181

In these questions, one letter can be moved from the first word to the second word to make two new words.

The letters must **not** otherwise be rearranged and **both** new words must make sense.

Find the letter that moves and mark it on your answer sheet.

**Example**    blank    ate

A b    B I    C a    D n    E k

**Answer**    I

**Solution**    The answer is I: when you remove 'I' from the word 'blank', you get a new word '**bank**', and when you add 'I' to the word 'ate', you get a new word '**late**'.

22

slumber    boaters

A s    B I    C m    D b    E r

23

heart    bough

A h    B e    C a    D r    E t

24

bleach    save

A b    B I    C e    D a    E c

25

darling    singe

A d    B r    C I    D n    E g



**32**

(articulate broadcast condemn) (denounce windy wide)

- |              |            |
|--------------|------------|
| A articulate | X denounce |
| B broadcast  | Y windy    |
| C condemn    | Z wide     |

**33**

(richer thrive inspect) (swarm prosper gold)

- |           |           |
|-----------|-----------|
| A richer  | X swarm   |
| B thrive  | Y prosper |
| C inspect | Z gold    |

**34**

(cordial pupil gentleman) (dilute boy pleasant)

- |             |            |
|-------------|------------|
| A cordial   | X dilute   |
| B pupil     | Y boy      |
| C gentleman | Z pleasant |

**35**

(prize levitate retrieve) (laboratory fetch accomplish)

- |            |              |
|------------|--------------|
| A prize    | X laboratory |
| B levitate | Y fetch      |
| C retrieve | Z accomplish |

**36**

(pail sunny beach) (tanned bucket water)

- |         |          |
|---------|----------|
| A pail  | X tanned |
| B sunny | Y bucket |
| C beach | Z water  |

**37**

(weapon fatal target) (danger lethal position)

- |          |            |
|----------|------------|
| A weapon | X danger   |
| B fatal  | Y lethal   |
| C target | Z position |

In each sentence, **two** words have had one letter removed and their remaining letters mixed up. The same letter has been removed from **both** words.

You must unscramble the letters and work out which letter is missing. Both words **must** make sense in the context of the sentence.

Find the letter that is missing from both words and mark it on your answer sheet.

**Example** The pleap were juicy and tewe.

A p      B h      C t      D s      E d

**Answer** **s**

**Solution** The sentence is: The apples were juicy and sweet.  
The letter missing from both words is **s**.

**38** The bell signalled the atts of the cae.

A m      B b      C n      D r      E l

**39** Aunt May ordered dasa for hcnu.

A b      B t      C r      D e      E l

**40** My brother's bftaool team won the eegua.

A i      B m      C n      D c      E s

**41** My parents are ginvo to a laresl house.

A t      B k      C m      D w      E y

**42** I received a pair of tleia shoes for my yartdih.

A s      B b      C u      D f      E n

**43** The optician said I might need saslsg next ray.

A e      B i      C o      D t      E d

**44** My sclaree retis has broken her leg.

A p      B w      C k      D s      E n

**45** The arda students derrepfo their play to the rest of the school.

A w      B i      C m      D c      E t

Read the following information, then find the correct answer and mark its letter on your answer sheet.

46

A dog walker walks dogs 7 days a week.

On Monday, Wednesday and Friday, she goes for a dog walk at 9.00 a.m. and then every other hour, on the hour, with her last walk starting at 5.00 p.m.

On Tuesdays and Thursdays, she starts her first walk at 10.00 a.m. and finishes her last walk at 3.30 p.m.

She has 30 minutes rest between dog walks on these 2 days.

At the weekend, she goes for a walk every 3 hours, with her first walk being at 10.00 a.m. and her last walk starting at 4.00 p.m.

Every walk lasts exactly an hour.

**How many dog walks does the dog walker go on in one week?**

- A** 29 dog walks
- B** 28 dog walk
- C** 27 dog walks
- D** 26 dog walks
- E** 25 dog walks

In these questions, the **same** letter must fit into **both** sets of brackets to complete the word in front of the brackets and begin the word after the brackets.

Find this letter and mark it on your answer sheet.

**Example**    boa [ ? ] idy

car [ ? ] urn

- A** r
- B** m
- C** d
- D** t
- E** s

**Answer**    **t**

**Solution**    The letter that fits into both sets of brackets to make four words is **t**. The four words are **boat, tidy, cart, turn**.

47

cla [ ? ] one

mai [ ? ] ods

- A** w
- B** p
- C** l
- D** n
- E** d

48

too [ ? ] ire

sho [ ? ] ape

- A** t
- B** p
- C** n
- D** m
- E** c

49

sla [ ? ] omb

lam [ ? ] rim

- A** p
- B** t
- C** e
- D** s
- E** b

50

blo [ ? ] ear

A w

dra [ ? ] owl

B f

C b

D t

E h

51

fle [ ? ] light

A b

com [ ? ] way

B e

C s

D a

E p

52

bot [ ? ] eat

A s

mas [ ? ] ose

B h

C l

D t

E r

53

sol [ ? ] ats

A t

kil [ ? ] oze

B l

C b

D o

E e

In these questions, find the **two** words, **one** from each group, that will complete the sentence in the best way.

Mark **both** words on your answer sheet.

**Example** Up is to (vertical forward down) as left is to (horizontal right turn).

A vertical

X horizontal

B forward

Y right

C down

Z turn

**Answer** **down right**

**Solution** The correct sentence is: **Up** is to **down** as **left** is to **right**. The two pairs of words are antonyms (opposites). For other questions, the word relationship will be something different (pay attention to word type as well as meaning). The important thing to remember is that the two relationships in each sentence are connected.

54

Egyptian is to (hieroglyphics pyramid tomb) as Roman is to (Caesar emperor Latin).

A hieroglyphics

X Caesar

B pyramid

Y emperor

C tomb

Z Latin

55

Good is to (merit behave better) as little is to (small less amount).

A merit

X small

B behave

Y less

C better

Z amount

**56**

Caret is to (trace gold leek) as defer is to (late freed search).

- |         |          |
|---------|----------|
| A trace | X late   |
| B gold  | Y freed  |
| C leek  | Z search |

**57**

General is to (official store army) as admiral is to (navy title militant).

- |            |            |
|------------|------------|
| A official | X navy     |
| B store    | Y title    |
| C army     | Z militant |

**58**

Friend is to (alley fiend tend) as foe is to (four low enemy).

- |         |         |
|---------|---------|
| A alley | X four  |
| B fiend | Y low   |
| C tend  | Z enemy |

**59**

Prisoner is to (cell convict warden) as patient is to (virtue nurse tolerate).

- |           |            |
|-----------|------------|
| A cell    | X virtue   |
| B convict | Y nurse    |
| C warden  | Z tolerate |

**60**

Prime is to (two one best) as level is to (even odd ground).

- |        |          |
|--------|----------|
| A two  | X even   |
| B one  | Y odd    |
| C best | Z ground |

**A B C D E F G H I J K L M N O P Q R S T U V W X Y Z**

The alphabet is here to help you with these questions.

You need to work out a different code for each question.

Choose the correct answer and mark it on the answer sheet.

**Example** If the code for **LARGE** is **MBSHF**, what is the code for **SMALL**?

- A TNBMM
- B RLZKK
- C TLBKM
- D SNCNO
- E TBNBM

**Answer** **TNMBB**

**Solution** If the code for LARGE is MBSHF, then the code for L is M, the code for A is B, the code for R is S, the code for G is H and the code for E is F. Each code letter comes immediately after the letter from the word in the alphabet. Using the same code for SMALL, the code for S is T, the code for M is N, the code for A is B and the code for L is M, so the answer is **TNBMM**.

61

If the code for HOPE is GNOD, what is the code for WISH?

- A VHRG
- B VHQG
- C VHQF
- D UHQG
- E UHRG

62

If the code for GAME is IYOC, what is the code for MOVE?

- A OMYC
- B OQXC
- C OMXC
- D OQXG
- E OMXG

63

If the code for WORLD is XQUPI, what is the code for GREAT?

- A HTHDY
- B ITHFY
- C ITHEX
- D FTHEX
- E HTHEY

64

If the code for BROWN is YILDM, what does DSRGV mean?

- A WHINE
- B WHITE
- C WINCE
- D WHICH
- E SHIRT

65

If the code for SPARK is WTEVO, what is the code for SHORT?

- A WLTVX
- B WLSUX
- C WLTUX
- D WLSVX
- E WLSVY

66

If the code for BOAT is AQXX, what is the code for SHIP?

- A RJFT
- B SOFT
- C RAFT
- D RJLT
- E RIFT

In these questions, three of the five words are related in some way.

Find the **two** words that do **not** go with these three and mark them **both** on your answer sheet.

**Example**    robin    beak    crow    rabbit    eagle

- A robin
- B beak
- C crow
- D rabbit
- E eagle

**Answer**    **beak**    **rabbit**

**Solution**

The words 'robin', 'crow' and 'eagle' are related because they are all types of bird. The words '**beak**' and '**rabbit**' do not go with these three words.

67

broadcast    station    stream    episode    transmit

- A broadcast
- B station
- C stream
- D episode
- E transmit

68

race    track    runner    marathon    sprint

- A race
- B track
- C runner
- D marathon
- E sprint

69

espionage    agent    spy    clandestine    investigator

- A espionage
- B agent
- C spy
- D clandestine
- E investigator

- 70** lead follow silver walk iron
- A lead  
B follow  
C silver  
D walk  
E iron
- 71** barley malt ingredients hops harvest
- A barley  
B malt  
C ingredients  
D hops  
E harvest
- 72** billiards cue chalk pool snooker
- A billiards  
B cue  
C chalk  
D pool  
E snooker
- 73** physics economics chemistry biology theology
- A physics  
B economics  
C chemistry  
D biology  
E theology
- HL
- A B C D E F G H I J K L M N O P Q R S T U V W X Y Z**

The alphabet is here to help you with these questions.

Find the next pair of letters in each series and mark it on your answer sheet.

**Example** FN GM HL IK [ ? ]

A JK      B JJ      C IJ      D KK      E

**Answer** **JJ**

**Solution** The letters are grouped into pairs. The first letters in the pairs follow alphabetical order: F, G, H, I. The second letters in the pairs follow reverse alphabetical order: N, M, L, K. Following this pattern, the next pair of letters after IK must be **JJ**.

74

LP NL PH RD [ ? ]  
A TA B UZ C TY D UA E TZ

75

WI VL UO TR [ ? ]  
A SV B SU C TU D SW E TV

76

WJ UK TM TP UT [ ? ]  
A VZ B WZ C WY D XY E XZ

77

VA QC NB MD [ ? ]  
A NC B ND C OC D MC E NB

78

CP BK YJ WQ DO AL ZI VR [ ? ]  
A EM B FN C EO D EN E FO

79

ZF TO XJ WP VN ZQ TR CR [ ? ]  
A SV B RW C RV D SW E QW

80

XP UL VI SG TF [ ? ]  
A QF B PF C QG D SF E RG

## Passage

### **From *Not That it Matters* by A. A. Milne**

Samuel Butler made a habit (and urged it upon every young writer) of carrying a notebook about with him. The most profitable ideas, he felt, do not come from much seeking, but rise unbidden in the mind, and if they are not put down at once on paper, they may be lost for ever. But with a notebook in the pocket you are safe; no thought is  
5 too fleeting to escape you. Thus, if an inspiration for a five-thousand word story comes suddenly to you during the dessert, you murmur an apology to your neighbour, whip out your pocket-book, and jot down a few rough notes. "Hero choked peach-stone eve marriage Lady Honoria. Pchtree planted by jltd frst love. Ironyofthings. Tragic." Next  
10 morning you extract your notebook from its white waistcoat, and prepare to develop your theme (if legible) a little more fully. Possibly it does not seem so brilliant in the cold light of morning as it did after that fourth glass of Bollinger. If this be so, you can then make another note—say, for a short article on "Disillusionment." One way or another a notebook and a pencil will keep you well supplied with material.

If I do not follow Butler's advice myself, it is not because I get no brilliant inspirations  
15 away from my inkpot, nor because, having had the inspirations, I am capable of retaining them until I get back to my inkpot again, but simply because I should never have the notebook and the pencil in the right pockets. But though I do not imitate him, I can admire his wisdom, even while making fun of it. Yet I am sure it was unwise of him to take the public into his confidence. The public prefers to think that an author does not  
20 require these earthly aids to composition. It will never quite reconcile itself to the fact that an author is following a profession—a profession by means of which he pays the rent and settles the weekly bills. No doubt the public wants its favourite writers to go on living, but not in the sordid way that its barrister and banker friends live. It would prefer to feel that manna dropped on them from Heaven, and that the ravens erected them a  
25 residence; but, having regrettfully to reject this theory, it likes to keep up the pretence that the thousand pounds that an author received for his last story came as something of a surprise to him—being, in fact, really more of a coincidence than a reward.

The truth is that a layman will never take an author quite seriously. He regards  
authorship, not as a profession, but as something between an inspiration and a hobby. In  
30 as far as it is an inspiration, it is a gift from Heaven, and ought, therefore, to be shared with the rest of the world; in as far as it is a hobby, it is something which should be done not too expertly, but in a casual, amateur, haphazard fashion. For this reason a layman will never hesitate to ask of an author a free contribution for some local publication, on such slender grounds as that he and the author were educated at the same school or had  
35 both met Robinson. But the same man would be horrified at the idea of asking a Harley Street surgeon (perhaps even more closely connected with him) to remove his adenoids for nothing. To ask for this (he would feel) would be almost as bad as to ask a gift of ten guineas (or whatever the fee is), whereas to ask a writer for an article is like asking a friend to decant your port for you—a delicate compliment to his particular talent. But in  
40 truth the matter is otherwise; and it is the author who has the better right to resent such a request. For the supply of available adenoids is limited, and if the surgeon hesitates to

occupy himself in removing one pair for nothing, it does not follow that in the time thus saved he can be certain of getting employment upon a ten-guinea pair. But when a Harley Street author has written an article, there are a dozen papers which will give him his own price for it, and if he sends it to his importunate schoolfellow for nothing, he is literally giving up, not only ten or twenty or a hundred guineas, but a publicity for his work which he may prize even more highly. Moreover, he has lost what can never be replaced—an idea; whereas the surgeon would have lost nothing.

- 1.** *In your own words, explain why Samuel Butler thought young writers should carry notebooks around with them.*

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(2 marks)

- 2.** Why do the words in the quotation marks (lines 7–8) contain grammatical errors, use abbreviations and not form complete sentences?

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(2 marks)

- 3.** Reread lines 7–8 carefully. Write a paragraph outlining the plot we are given in these lines.

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(4 marks)

- 4.** Think of **two** adjectives that could be used to describe Milne and give a separate reason for each of your choices.

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(4 marks)

- 5.** Milne thinks writers should not give away articles they have written for free.  
*In your own words*, explain his reasoning.

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(4 marks)

- 6.** Explain the meaning of the following words, as they are used in the passage:

unbidden (line 3)

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For more information about the study, please contact Dr. [REDACTED] at [REDACTED].

legible (line 10)

---

Digitized by srujanika@gmail.com

erected (line 24)

---

For more information about the study, please contact Dr. John Smith at (555) 123-4567 or via email at [john.smith@researchinstitute.org](mailto:john.smith@researchinstitute.org).

layman (line 28)

importunate (line 45)

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(5 marks)

(5 marks)

7. Think of **two** adjectives that Milne would be likely to use to describe people who ask writers for free articles and give a separate reason for each adjective.

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(4 marks)

(Total: 25 marks)

**PLEASE CONTINUE TO SECTION B**

## **SECTION B**

**Write a short story which includes animals that are able to communicate with each other verbally but are not able to communicate verbally with humans.**

You will be assessed on the quality of your writing in this section. Marks will be awarded for:

- variety of sentences and punctuation
  - imaginative use of language and interesting vocabulary
  - accuracy in punctuation, spelling and use of paragraphs.



1. What is a quarter of an eighth of a sixth of 960?

2.  $\frac{3}{5} \times \frac{15}{21} \times \frac{7}{45} \times 15 =$

3. What fraction of a week is 6 hours?  
Put your answer in its lowest form.

4. What is the difference between the range of the first 10 square numbers and the range of the first 10 cube numbers?

**For questions 5, 6 and 7, fill in the missing numbers.**

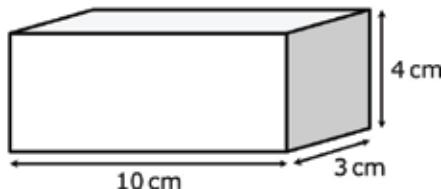
5.  $(27 \div 9)^2 = 135 \div \underline{\hspace{2cm}}$

6.  $0.2 \times 14 = 14 \div \underline{\hspace{2cm}}$

7.  $17 + 4 \times 3 = \underline{\hspace{2cm}} - (4 - 2)$

**For questions 8, 9, 10 and 11, use the diagram below.**

Not to scale



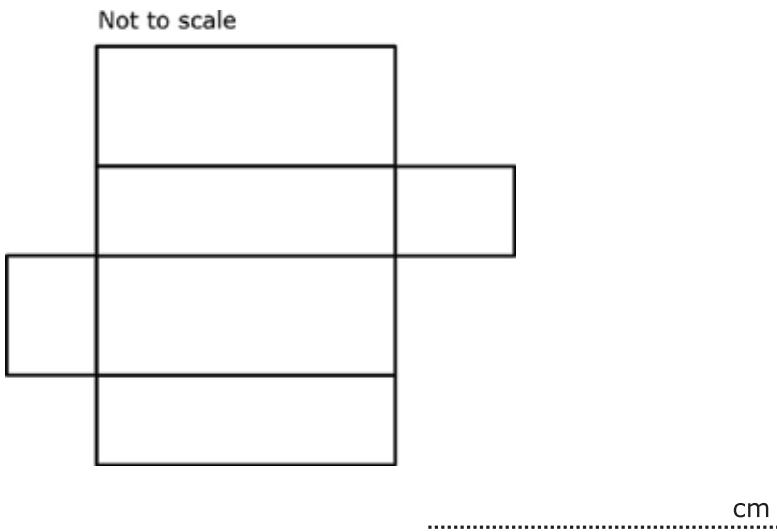
8. What is the total surface area of the cuboid?

.....  $\text{cm}^2$

9. What is the volume of the cuboid?

.....  $\text{cm}^3$

- 10.** What is the perimeter of the net of the cuboid?



- 11.** Dev wants to cut the cuboid into identical smaller shapes.  
The new cuboids must all have sides that are half the length of his current cuboid.

How many such cuboids can Dev make?  
.....

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**For questions 12, 13 and 14, use the information below.**

A plumber charges £20 to attend a job and a further £1 for every minute that the job takes.

The plumber charges £5 per metre of pipe required.

For example, the price of a job that requires 4 m of pipe and takes from 09:30 until 10:00 is  $\text{£}20 + \text{£}30 + \text{£}20 = \text{£}70$ .

- 12.** What is the price of a job that requires 8 m of pipe and takes from 08:30 until 10:05?

£ .....

- 13.** A job lasts from 11:40 to 1:15 and the price is £125.

What length of pipe was used?  
..... m

- 14.** A job finishes at 16:20, requires 3 m of pipe and costs £100.

At what time did the job start?  
.....

- 15.** Jay has two cards.  
One card has the digit 2 written on it and the other has a different digit.  
Jay puts the cards next to each other to form a two-digit number.  
If Jay puts them one way round, the number is three-eighths of the number formed when he puts the cards the other way around.

What is the other digit on the card?

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**For questions 16, 17 and 18, use this information.**

Velocity (speed) is the distance travelled divided by the time taken.  
For example, if a car travels a distance of 2 m every second, the velocity (speed) of the car is 2 m per second (2 m/s).

If a car increases its velocity, we say the car accelerates.  
If a car increases its velocity by 2 m/s, every second, the acceleration is 2 m/s<sup>2</sup>.

Constant acceleration is calculated by change in velocity, divided by time taken.  
For example, if a car increases its velocity from 5 m/s to 15 m/s in 5 seconds, the acceleration is:

$$\frac{15 - 5}{5} = 2 \text{ m/s}^2$$

- 16.** What is the constant acceleration of a car with a starting velocity of 0 and which is moving at a velocity of 20 m/s after 5 seconds?

m/s<sup>2</sup>

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- 17.** The constant acceleration of a plane is 6 m/s<sup>2</sup>.

If the plane starts from rest (0 m/s), how fast is it travelling after 6 seconds (in metres per second)?

m/s

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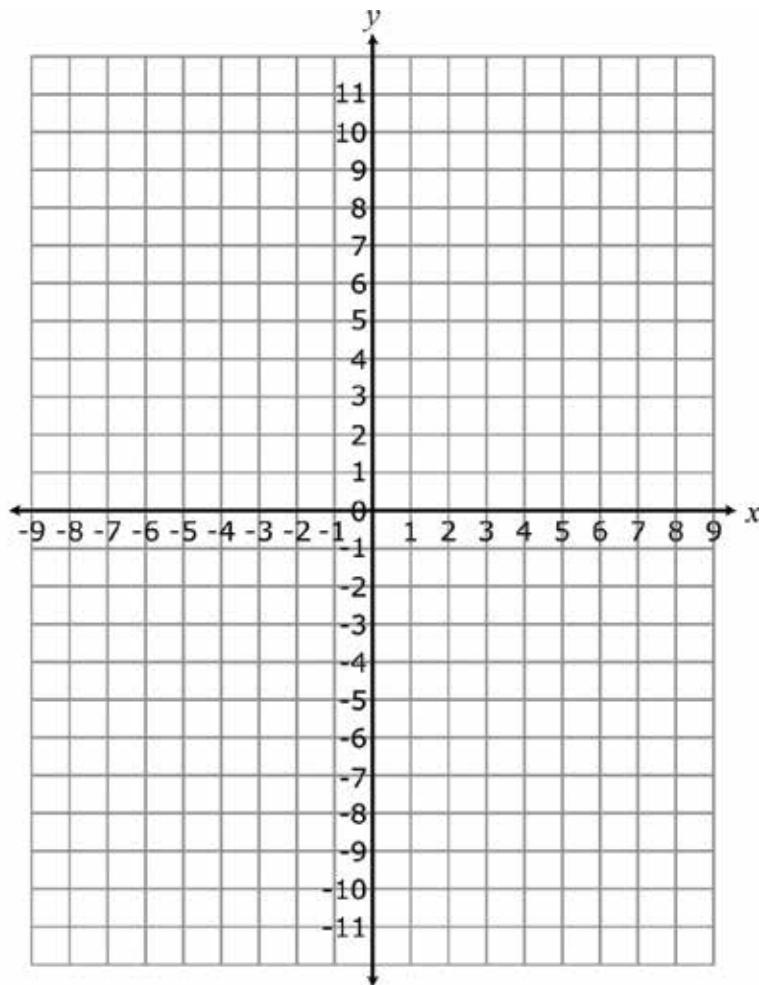
- 18.** The constant acceleration of a motorboat on the sea, starting from rest, is 4 m/s<sup>2</sup>.

If the boat reaches its top speed in 5 seconds, how fast is it going, in kilometres per hour, when it reaches its top speed?

km/h

---

- 19.** Below is a coordinate grid made up of unit squares.



An ant starts at a point called A.

The ant travels 5 squares to the right and then 5 squares up.

A spider starts at point S  $(-2, 7)$  and travels 6 squares down and 3 squares to the left.

The midpoint between the ant and the spider at the end of their journeys is  $(-4, 3)$ .

What are the coordinates of point A, from which the ant began?

.....

**For questions 20, 21, 22 and 23, use this information.**

Mr Numero makes up a set of rules for sequences:

- 1 If you ever have a square number (except 1), subtract 3.
- 2 If you ever have a prime number, add 3.
- 3 If you have a number divisible by 3, subtract 2.
- 4 If you have an odd number, multiply by 2.
- 5 If you have an even number, add 5.

If your current number meets more than one of the criteria above, the criterion higher up the list takes priority.

For example, a sequence could start 26 and continue 31, 34, 39, 37, 40, etc.

- 20.** A sequence starts with 9.

What is the fifth term in the sequence?

---

.....

- 
- 21.** The third term of a sequence is 19.

What number does the sequence begin with?

---

.....

- 
- 22.** The sequence starting with 1 starts to repeat two numbers over and over again.

Which two numbers keep repeating?

---

.....

- 
- 23.** The sequence starting with 25 contains just three different numbers.

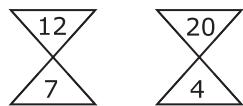
What is the sum of these three numbers?

---

.....

**For questions 24 and 25, use this information.**

Let the 'triangle upsets' show pairs of numbers.



The first TU (triangle upset) has 12 and 7 and the second TU has 20 and 4.

If the TUs have + between them, you add the product of the top numbers to the product of the bottom numbers.

If the TUs have – between them, you subtract the product of the bottom numbers from the product of the top numbers.

$$\begin{array}{c} \diagup 12 \\ \times \\ \diagdown 7 \end{array} + \begin{array}{c} \diagup 20 \\ \times \\ \diagdown 4 \end{array} = 12 \times 20 + 7 \times 4 = 268$$

$$\begin{array}{c} \diagup 12 \\ \times 7 \\ \hline \end{array} - \begin{array}{c} \diagup 20 \\ \times 4 \\ \hline \end{array} = 12 \times 20 - 7 \times 4 = 212$$

- 24.** If the ratio of M:N is 4:1, what is the value of M in the following TUs?

$$\begin{array}{c} 8 \\ \times \\ 5 \\ \hline \end{array} + \begin{array}{c} M \\ \times \\ N \\ \hline \end{array} = 111$$

- 25.** If the sum of P and Q is 12 in the following TUs, what is the value of  $P \div Q + Q \div P$ ?

$$\begin{array}{c} 8 \\ \times 18 \\ \hline P \\ \times Q \\ \hline = 124 \end{array}$$

**For questions 26, 27, 28, 29 and 30, use this information.**

<b>A</b> litres of orange juice costing £1.35 per litre	£6.75
6 snack bars at a cost of 79p each	£ <b>B</b>
<b>C</b> snack bags at a cost of 85p each	£2.55
<b>E</b> envelopes which cost £5 for 20	£ <b>D</b>
Total	£16.04

- 26.** What is the value of A?

**27.** What is the value of B?

£

---

**28.** What is the value of C?

.....

---

**29.** What is the value of D?

£

---

**30.** What is the value of E?

.....

---

**For questions 31, 32, 33 and 34, solve the equations to find the value of  $x$ .**

**31.**  $x + 3 = 10$

.....

---

**32.**  $2x - 5 = 7$

.....

---

**33.**  $3x + 2 = x + 8$

.....

---

**34.**  $\frac{15}{x} = 3$

.....

---

**For questions 35, 36 and 37, write a prime number in each gap to make the equations correct.**

**35.**  $736 \div 46 = 736 \div \underline{\quad} \div \underline{\quad}$

---

**36.**  $3249 = (\underline{\quad})^2 \times (\underline{\quad})^2$

---

**37.**  $1001 = \underline{\quad} \times \underline{\quad} \times \underline{\quad}$

---

**For questions 38, 39 and 40, use this information.**

The table shows the times in seconds for each leg of a relay race between four teams.

	<b>Team 1</b>	<b>Team 2</b>	<b>Team 3</b>	<b>Team 4</b>
<b>Leg 1</b>	56.14	58.20	57.67	56.80
<b>Leg 2</b>	59.78	57.90	58.45	57.20
<b>Leg 3</b>	58.00	58.60	59.28	59.25
<b>Leg 4</b>	57.70	59.23	58.89	58.30

**38.** Which team had the fastest runner?

.....

---

**39.** Which team won?

.....

---

**40.** If all the times are rounded to the nearest second, what is the median time?

seconds

---

- 41.** Benji the rabbit is 4 months, 40 weeks, 400 days and 4000 hours old.

How old is Benji, to the nearest year?

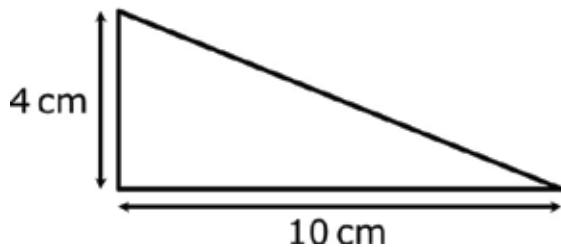
.....

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**For questions 42 and 43, use this information.**

Tim has two identical right-angled triangles.

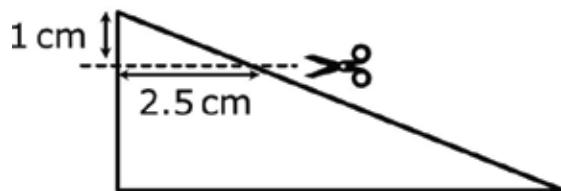
**Not to scale**



The triangles have a base length of 10 cm and a height of 4 cm.  
Tim is going to cut the triangles with scissors.

- 42.** The top of one triangle is cut off parallel to the base, as shown.

**Not to scale**



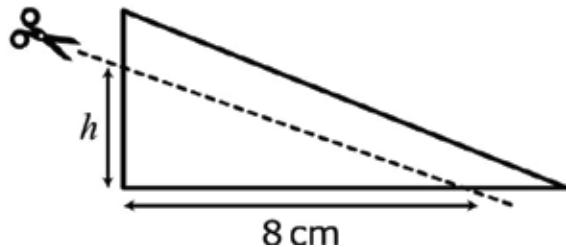
What is the area of the trapezium that remains?

.....  
cm<sup>2</sup>

---

- 43.** The next triangle is cut in half along the line shown so that the areas of both the shapes produced are equal.

Not to scale



What is the height  $h$ ?

..... cm

---

**For questions 44, 45 and 46, use this information.**

The expressions in the table follow a pattern.

$20 - b$	$2(10 - b)$	X	$2(10 - 2b)$
$19 - b$	Y	$19 - 3b$	$19 - 4b$
$18 - b$	$2(9 - b)$	Z	$2(9 - 2b)$

- 44.** Write an expression that could go in Box X.

.....

---

- 45.** Write an expression that could go in Box Y.

.....

---

- 46.** Write an expression that could go in Box Z.

.....

---

**47.** What is the lowest common multiple (LCM) of 1, 2, 3, 4, 5, 6, 7 and 8?

---

---

**48.** What is the highest common factor (HCF) of 80, 120 and 200?

---

---

**For questions 49 and 50, use this information.**

The square root of 100 is 10 and can be written as  $\sqrt{100} = 10$ .

**49.** What is the value of  $\sqrt{400}$  ?

---

---

**50.** What is the value of  $\sqrt{N} \times \sqrt{N}$ ?

---

---

**END OF TEST**



DAME ALICE OWEN'S  
SCHOOL  
est. 1613

## Practice Test 4

### Answers

## **English: Section A**

*Answers must be written in full sentences.*

1. Award 1 mark for anything along the lines of it meaning writers can jot down their ideas wherever they happen to be when they get their ideas. Award a second mark for something along the lines of it meaning they do not have to rely on their memory (as their ideas would be written down in their notebook).

### **Example**

*Samuel Butler thought young writers should carry a notebook around with them so they could write down any ideas that popped into their heads (wherever they happened to be). Also, writing them down in a notebook would mean they did not forget their ideas.*

2. Award 1 mark for anything along the lines of it reflecting the notes a writer might make in a notebook. Award 1 mark for anything along the lines of the notes not needing to follow conventional rules because the notes are just to remind the narrator of their ideas (as long as the writer understands their own notes, that is all that is needed). You could also get one of the marks by mentioning that it is quicker for the writer to write in note form than to write out their ideas properly.

### **Example**

*The words in the quotation marks contain grammatical errors, use abbreviations and do not form complete sentences because they are reflecting the notes a writer might make when they think of an idea. It is quicker for the writer just to write in note form (they might be in a situation where it is not appropriate to be writing in their notebook for more than a few seconds). Furthermore, only the writer needs to understand what is written in the notebook, so the ideas do not need to be written out properly.*

3. Award 1 mark for each of the following that you have written:

- The hero dies by choking on a peach stone.
- This choking occurs the day before he is due to marry Lady Honoria.
- The peach tree had been planted by a former lover of the hero.
- The former lover had been dumped by the hero, making what happens ironic.

### **Example**

*The hero dies by choking on a peach stone. This tragic event occurs the day before his wedding to Lady Honoria. The peach tree had been planted by a former lover of the hero. This former lover had been dumped by the hero, making his manner of death ironic.*

4. Award 1 mark for each appropriate adjective you have chosen. Award an additional mark if you have given a logical reason for one of your adjectives and 2 marks if you have given a logical reason for both adjectives.

**Example**

*I think that Milne is disorganised. I think this because he is not capable of organising himself well enough to carry a notebook around with him: 'I should never have the notebook and the pencil in the right pockets.'*

*I think that Milne is intelligent. I think this because of the fact that he has written a book. In my opinion, such an endeavour requires a certain level of intelligence.*

5. Award 1 mark for mentioning something along the lines of it meaning writers could miss out on a considerable amount of money. Award 1 mark for anything along the lines of it meaning they could miss out on valuable exposure (which could lead to further work). Award 1 mark for anything along the lines of it not being a reasonable thing to expect them to do (you would not expect any other profession to offer their services for free). Award 1 mark for mentioning that if he gives away an article, the writer has then used up an idea and will not be able to use that idea again.

**Example**

*Milne thinks writers should not give away articles they have written for free. He thinks this because giving away articles for free would mean a loss of income (writers get paid for articles). He also thinks it would mean a loss of valuable exposure, as the article would appear in a paper if he sold it and be read by many people. Furthermore, giving away articles for free is a ridiculous thing to do – no other profession would work for free. Finally, giving away an article for free would mean that an idea the writer had has been used and cannot be used again.*

6. Award 1 mark for each correct definition you have.

You need a response that shows you understand that *unbidden* refers to ideas that come into the mind spontaneously and not because you are trying to think of ideas.

You need a response that shows you understand that *legible* refers to writing that it is possible to read / decipher.

You need a response that shows you understand that *erected* means built / constructed.

You need a response that shows you understand that *layman* means someone who is not a professional writer in this context.

You need a response that shows you understand that *importunate* means persistent / insistent (someone described as *importunate* does not give up).

7. Award 1 mark for each appropriate adjective you have thought of. Award an additional mark if you have given a logical reason for one of your adjectives and 2 marks if you have given a logical reason for both adjectives.

**Example**

*Milne would be likely to describe people who ask writers for free articles as ignorant. It is an ignorant thing to do because it shows a lack of understanding that writers need to earn money to pay their bills in the same way as everyone else: 'a profession by means of which he pays the rent and settles the weekly bills.'*

*He would also be likely to describe them as presumptuous. It is presumptuous to think that anyone should give you something for free. If a writer spends time writing an article, it is appropriate that they should be paid money for that article.*

## **English: Section B**

Marking a composition is more subjective and less rigid than marking a comprehension. However, in general, marks should be awarded for:

- a focused response to the question that fulfils the length requirement without straying off topic
- a clear structure with a beginning, a middle and an end, defined through the use of paragraphs
- use of interesting vocabulary and expressive adjectives and adverbs
- correct use of punctuation, including dialogue (if appropriate), and the use of sub-clauses
- good spelling and handwriting.

### **Sample mark scheme**

Punctuation and Spelling	6 marks
Vocabulary	6 marks
Structure and Story Development	10 marks
Presentation	3 marks

To gain full marks your response must demonstrate imagination and excellent language skills. Your story must make sense and be written in correct English.

You will lose marks if you make a lot of errors with grammar, punctuation and spelling, so be careful to avoid basic mistakes.

The mark scheme that follows illustrates how the 25 marks might be awarded. If your response meets all the criteria for the first range of marks, move on to the next, and so on. If it meets just one or two of the criteria for a range, it will be at the bottom end of that range. If it meets all of the criteria, it will be at the top of that range.

### **1–10 marks**

#### **Content**

- You have written your answer as a story.
- Your story includes at least two animals that communicate verbally with each other, but their characters have not been developed.
- You have tried to use language in a way that makes the piece interesting.
- You have used some simple techniques, e.g. a common simile:  
*Fido was as busy as a bee.*

### **Organisation**

- The piece has a clear opening, middle and ending.
- You have used paragraphs but not always accurately.

### **Technical accuracy**

- You have written some clear sentences and with correct but basic punctuation.
- You have used basic sentence forms, e.g. simple and compound sentences.
- You have mostly used Standard English.
- Your basic spelling is accurate.

## **11–20 marks**

### **Content**

- You have included more than just the sense of sight.
- You have developed the main characters in your story, giving their thoughts and feelings.
- You have included dialogue to progress the narrative.
- You have used some effective descriptive language, e.g. alliteration:  
*Fido felt fabulously frolicsome whenever his owner returned.*

### **Organisation**

- You lead the reader fluently through your story, following a logical sequence of events, e.g. you have events in chronological order.
- You have used paragraphs accurately.
- Your ending feels considered and does not feel abrupt or rushed.

### **Technical accuracy**

- Your sentences are mainly clear and accurate.
- You have used a range of punctuation.
- You have used a variety of sentence forms for effect.
- You have used Standard English appropriately and shown good control of grammar.
- Your spelling is generally accurate, including for complex and irregular words.

## **21–25 marks**

### **Content**

- You convey a strong sense of the main characters and how the events of the story affect them.
- You may have included a person (or people) in the story.
- You have used a wide and ambitious vocabulary.
- You have used a range of different literary techniques to good effect.

### **Organisation**

- You have fluently linked paragraphs using connectives.
- You have included a range of interesting descriptive details and woven them seamlessly into the plot.

### **Technical accuracy**

- Your sentences are clear and accurate throughout the story.
- You have used a wide range of punctuation accurately.
- You have used a full range of sentence forms for effect.
- You have used Standard English consistently and shown strong control of grammar.
- There is a high level of accuracy in your spelling.

**On the following pages you will find two examples of responses to the question. The first is at the lower end of the marks range, and the second is at the higher end of the marks range.**

## **Example Response: Lower Level**

Fido liked it when his owner got home. He would be pleased. He was a dog<sup>1</sup>. The cat was not bothered. She was called Tabby. Tabby would tell Fido to calm down. Fido did not listen. Fido was too boysterous<sup>2a</sup>.

Tabby told Fido to shut up one day. He was barking loudly<sup>2b</sup> and she hated it. He told her to go away. They then chased each other. Tabby accidentally<sup>2c</sup> knocked a vase over. It got all broke<sup>3a</sup>. Fido told her she was clumsy and stupid. The cat told Fido the owner would think he had done it. It was normally Fido that breaks<sup>4</sup> things. Fido knew this was true. He was worried. He did not want the owner to be cross against<sup>3b</sup> him. Tabby did not want the owner being cross neither<sup>3c</sup>. They decided to get rid off<sup>3d</sup> the vase. They hid the pieces in the bin. Then when the owner got home there was no broken vase to see. They were pleased with themselves. Later, the owner came home<sup>5</sup> and noticed it was gone. She thought she must have put it away without remembering. She decided to look for it another time. Fido and Tabby high fived each other. They get on better now.

## **Examiner's Comments**

1. It is more effective to *show* than it is to *tell*.

*Fido wagged his long, velvet tail enthusiastically whenever his owner returned from work.*

2. Be careful with your spelling.

- a. It should be 'boisterous'.
- b. It should be 'loudly'.
- c. It should be 'accidentally'.

3. Make sure that your grammar is correct.

- a. It should be 'It got broken' or just 'It broke'.
- b. It should be 'cross *with*' and not 'cross against'.
- c. It should be 'either' and not 'neither'.
- d. It should be 'of' and not 'off'.

4. Be consistent with the tense you use.

It should be 'broke' to be consistent with the rest of the story.

5. Start new paragraphs when necessary.

We have moved on to a later period of time when the owner comes home, so start a new paragraph. Also, have a separate concluding paragraph.

6. Try to use a wider variety of sentence structures.

7. Only full stops and commas have been used. Try to use a wider variety of punctuation.

8. Develop your characters. Describe, for example, how Tabby behaved when the owner got home. How did the cat feel when she broke the vase?

9. Use dialogue to progress the narrative – do not use only reported speech.
10. Use paragraphs properly and effectively; for example, starting a new paragraph when you move from one part of the hotel to the next.

### **Example Response: Higher Level**

Fido and Tabby lived contentedly with Sarah (their owner). I say contentedly, but Tabby would have preferred it if Fido lived elsewhere! It was his forever wagging tail and boisterous bounciness that irritated her.

'Sarah will be home soon! Sarah will be home soon!' he would shout, running around the house with his tongue hanging out, drooling saliva everywhere. Tabby preferred to play it cool, merely opening one eye when Sarah returned, doing one full circle in her basket, and then falling straight back to sleep.

One afternoon, when Fido had been particularly annoying (he'd been barking at pigeons in the garden for well over an hour) and kept saying: 'Come and look! Come and look!' to Tabby, Tabby decided to teach him a lesson.

'I have asked you to be quiet so many times, but you don't listen. Now, you will see how cross I am.'

With that, she proceeded to spit and hiss and hurtled from her basket to where Fido was gazing out the window. Uh oh! he thought, making the decision to run. He scampered across the living-room floor, leapt onto the sofa, leapt off the sofa, headed for the door, bombed it upstairs and onto his bed (well, Sarah's bed really). Tabby, in hot pursuit, decided to jump on the dusty dressing-table from where she could pounce onto Fido.

'Please, don't hurt me,' Fido pleaded. 'I promise I will just go to sleep now.'

'Too late, stupid dog!' Tabby cried as she accidentally knocked into a vase on the dressing-table which teetered for a second and then went crashing to the floor, smashing into smithereens.

Momentarily, they both froze in shock before Tabby regained her composure.

Slyly, she said, 'You'll get blamed for that. You are the clumsy one.'

'No, no! I will clean it up. Maybe, she won't notice. I don't want her to be cross with me; I love her soooo much!'

'We'll do it together,' sighed Tabby, taking pity on the dog's pathetic expression. How she wished Fido had her dignity.

One exhausting hour later, nobody would be any the wiser – if it wasn't for the strangely clean circular area on the dressing-table. Tabby had to concede that Fido's tail had been an exceptional brush and his carrying skills were immensely impressive. Maybe, just maybe, he wasn't completely useless after all. They high fived each other.

And Sarah? Well, she just thought she must have put the vase away somewhere safe and forgotten all about it. She was delighted by the affection her cat had surprisingly and suddenly developed for her dog though. It was as though, she thought, they were partners in crime.

## **Mathematics**

**Each correct answer is worth 1 mark.**

- |            |                |                      |
|------------|----------------|----------------------|
| <b>1.</b>  | 5              |                      |
| <b>2.</b>  | 1              |                      |
| <b>3.</b>  | $\frac{1}{28}$ |                      |
| <b>4.</b>  | 900            |                      |
| <b>5.</b>  | 15             | <b>38.</b> Team 1    |
| <b>6.</b>  | 5              | <b>39.</b> Team 4    |
| <b>7.</b>  | 31             | <b>40.</b> 58        |
| <b>8.</b>  | 164            | <b>41.</b> 3         |
| <b>9.</b>  | 120            | <b>42.</b> 18.75     |
| <b>10.</b> | 62             | <b>43.</b> 2.5       |
| <b>11.</b> | 8              | <b>44.</b> $20 - 3b$ |
| <b>12.</b> | £155           | <b>45.</b> $19 - 2b$ |
| <b>13.</b> | 2              | <b>46.</b> $18 - 3b$ |
| <b>14.</b> | 15:15          | <b>47.</b> 840       |
| <b>15.</b> | 7              | <b>48.</b> 40        |
| <b>16.</b> | 4              | <b>49.</b> 20        |
| <b>17.</b> | 36             | <b>50.</b> $N$       |
| <b>18.</b> | 72             |                      |
| <b>19.</b> | (-8, 0)        |                      |
| <b>20.</b> | 2              |                      |
| <b>21.</b> | 11             |                      |
| <b>22.</b> | 13 and 16      |                      |
| <b>23.</b> | 74             |                      |
| <b>24.</b> | 12             |                      |
| <b>25.</b> | 5.2            |                      |
| <b>26.</b> | 5              |                      |
| <b>27.</b> | 4.74           |                      |
| <b>28.</b> | 3              |                      |
| <b>29.</b> | 2              |                      |
| <b>30.</b> | 8              |                      |
| <b>31.</b> | 7              |                      |
| <b>32.</b> | 6              |                      |
| <b>33.</b> | 3              |                      |
| <b>34.</b> | 5              |                      |
| <b>35.</b> | 2 and 23       |                      |
| <b>36.</b> | 19 and 3       |                      |
| <b>37.</b> | 7, 11 and 13   |                      |

1	tin	37	fatal / lethal
2	nag	38	r
3	paw	39	l
4	rid	40	l
5	turn	41	m
6	nest	42	b
7	law	43	e
8	all owed	44	s
9	sup port	45	m
10	war time	46	A
11	rest ore	47	n
12	par take	48	t
13	show down	49	b
14	arc hive	50	b
15	2	51	a
16	70	52	h
17	75	53	o
18	25	54	hieroglyphics / Latin
19	364	55	merit / amount
20	22	56	trace / freed
21	677	57	army / navy
22	s	58	tend / low
23	t	59	warden / nurse
24	l	60	two / odd
25	l	61	VHRG
26	b	62	OMXC
27	r	63	HTHEY
28	u	64	WHITE
29	t	65	WLSVX
30	adamant / resolute	66	RJFT
31	optional / elective	67	station / episode
32	condemn / denounce	68	track / runner
33	thrive / prosper	69	espionage / clandestine
34	cordial / pleasant	70	follow / walk
35	retrieve / fetch	71	ingredients / harvest
36	pail / bucket	72	cue / chalk
		73	economics / theology
		74	TZ
		75	SU
		76	WY
		77	NC
		78	EN
		79	RV
		80	QF