SST6 Abstract Reasoning (AAS)
Simulation Test 23-2

Test Code: SST6AR23-2

Student Name: _____   Student ID: _____

PLEASE READ THE INSTRUCTIONS BELOW CAREFULLY:

You may use the back of your answer sheet for your working. This is what you are given at the real exam to use as working paper.

DO NOT WRITE ANYWHERE ELSE ON THE EXAM PAPER

This test asks you to look at ____ material and to answer all the questions on this material.

- This test paper **CANNOT BE TAKEN OUT** of the classroom
- You **MUST GIVE THE TEST PAPER BACK** before you leave the classroom
- You must **WRITE YOUR NAME AND ID** on this page and the answer sheet
- You must **PUT AWAY ALL ELECTRONIC DEVICES** and any other materials that could help you on this exam
- **DO NOT TOUCH OR DRAW ON** the barcode that is on your answer sheet

---

Advice for the test:

- For each question, you are given 4 or 5 possible answers marked A, B, C, D and E. Attempt to find the correct answer, and shade the corresponding bubble on the answer sheet.
- Each question is worth 1 mark, so try not to spend too long on one question – leave it for after you have finished the other questions.
- Check that the question number you are doing on the test paper is the same as the question number that you are shading on the answer sheet.
- There are no marks lost for incorrect answers, so even if you cannot solve a question, shade the box for the answer you think is most correct.

Instructions for the Answer Sheet:

- Use a B or HB pencil.
- Write your name, student ID and test code on the sheet.
- Shade the box which indicates your answer. All answers must be completed like THIS example:
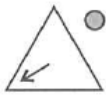

- Marks will not be deducted for incorrect answers.
- No mark will be given if more than ONE answer is completed for any question.
- If you make a mistake, ERASE the incorrect answer – DO NOT cross it out.

1. Find the missing number marked with the X in the magic square on the right.

12	A	X
19	B	11
14	C	D

   A. 18   **B.** 17   **C.** 16
   D. 13   **E.** 11
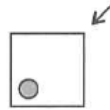
2. Find the figure that is most unlike the others.
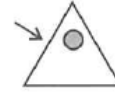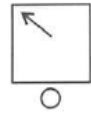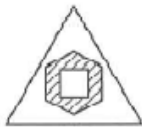
   a   b   c   d   e

3. After spending $\dfrac{4}{11}$ of her money, Angela has $56 left. How much did she begin with ?

   A. $77   **B.** $88   **C.** $100   **D.** $121   **E.** $154

4. Find the figure that is most unlike the others.

   a   b   c   d   e

5. Work out which of the options best fits in place of the missing square in the series.
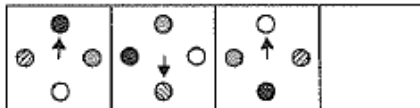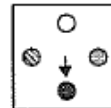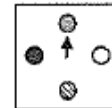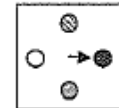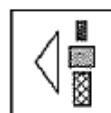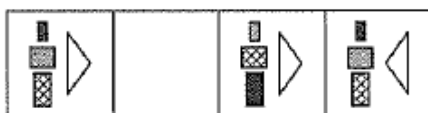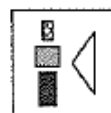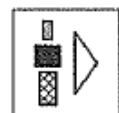
   a   b   c   d

6. The area of a rectangle is 156 cm². The length and width dimensions are whole numbers. Which of the following could not be the perimeter of the rectangle ?

   A. 160 cm   **B.** 110 cm   **C.** 50 cm   **D.** 64 cm   **E.** 72 cm

7. Work out which of the options best fits in place of the missing square in the series.
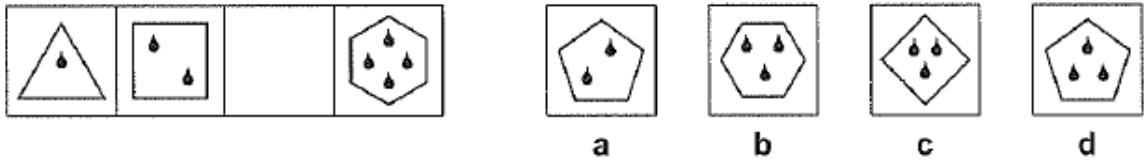
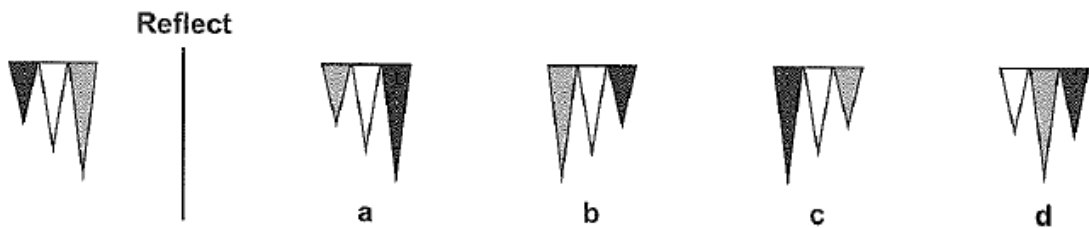   a   b   c   d

8. Work out which of the options best fits in place of the missing square in the series.
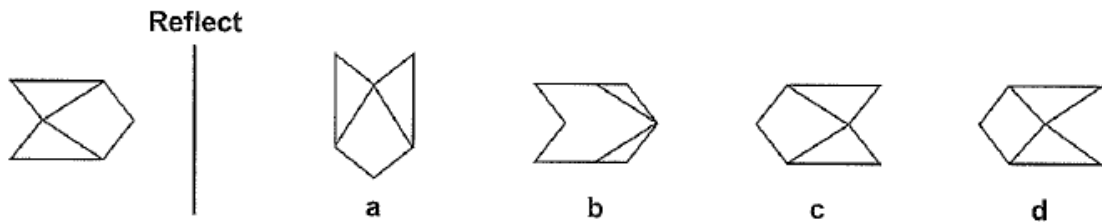

9. If March 12th is a Saturday, what day of the week will June 30th be ?

A. Tuesday   **B.** Thursday   **C.** Friday   **D.** Saturday   **E.** Sunday

**10.** Work out which option would look like the figure on the left if it was reflected over the line.

**11.** Work out which option would look like the figure on the left if it was reflected over the line.

12. A snail is climbing the stem of a plant which is 150 cm tall. Each day from 7 am to 7 pm it climbs 20 cm and each night from 7 pm to 7 am it slides down 10 cm. Starting from ground level, how many hours will it take the snail to reach the top of the plant ?

A. 360 hrs   **B.** 340 hrs   **C.** 332 hrs   **D.** 324 hrs   **E.** 300 hrs

13. Work out which of the options best fits in place of the missing square in the grid.
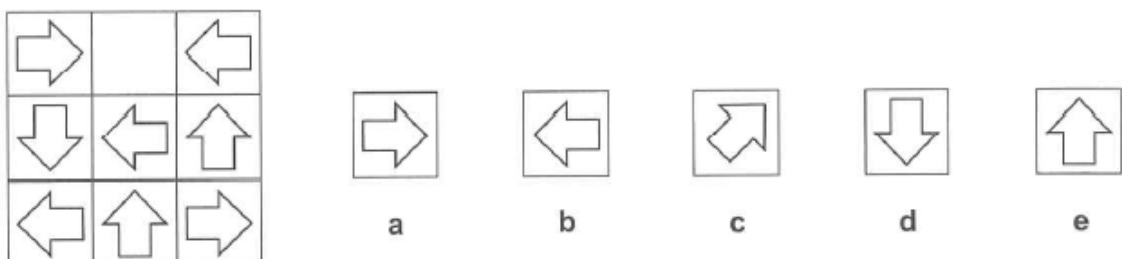
14. Work out which of the options best fits in place of the missing square in the grid.
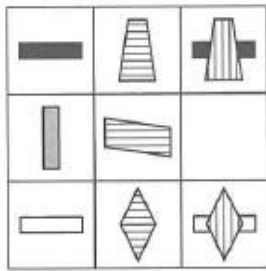
15. In a 200-metre race, Aaron can run 25 metres in 4 seconds, Ben can run 40 metres in 6 seconds and Carl can run 10 metres in 2 seconds. Who would win the race and by how much ?

A. Aaron by 2 seconds   **B.** Aaron by 4 seconds   **C.** Ben by 2 seconds

D. Ben by 4 seconds   **E.** Carl by 2 seconds
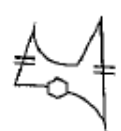
16. Work out which option is most like the two figures on the left.

17. Work out which option is most like the two figures on the left.

18. Farmer Bill has a small paddock that needs to be planted with barley seed. The paddock measures 25 metres by 18 metres. One bag of seed will cover exactly 15 m². How many bags of seed will the farmer need ?

A. 28   **B.** 30   **C.** 32   **D.** 33   **E.** 35

19. Work out which option is most like the two figures on the left.
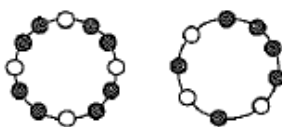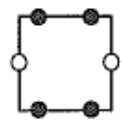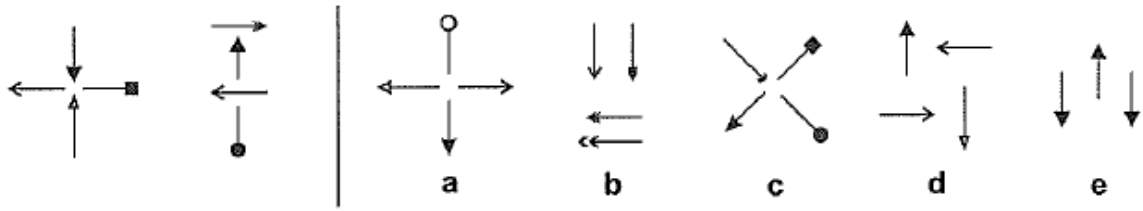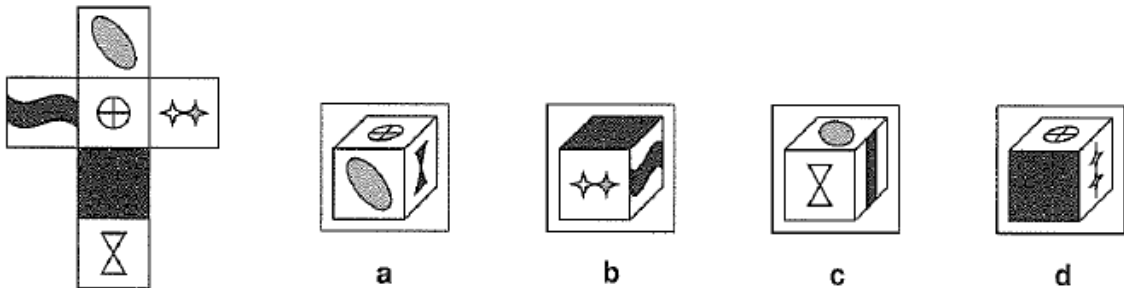
20. Work out which option is most like the two figures on the left.
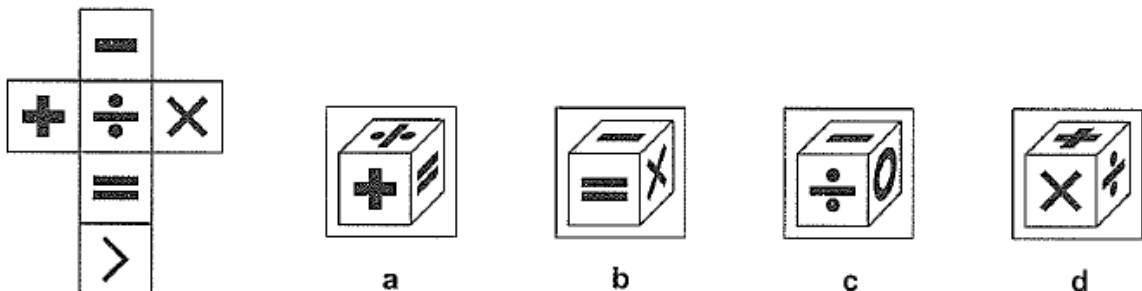

a   b   c   d   e

21. The floor of a room needs to be covered with square tiles, each with a side length of 20 cm. If the area of the floor is 24 m², how many tiles will be required ?

A. 500 **B.** 520 **C.** 540 **D.** 560 **E.** 600

22. Work out which of the four cubes can be made from the net.

a   b   c   d

**23.** Work out which of the four cubes can be made from the net.

a   b   c   d

24. A brand of muesli bars is sold in packs of 3, 6, 9, 12 or 18. Which is the best buy ?

A. 3 for $3.90 **B.** 6 for $7.75 **C.** 9 for $11.50

D. 12 for $15.10 **E.** 18 for $22.75

25. Look at how the first bug changes to become the second bug. Then work out which option would look like the third bug if you changed it in the same way.


a   b   c   d
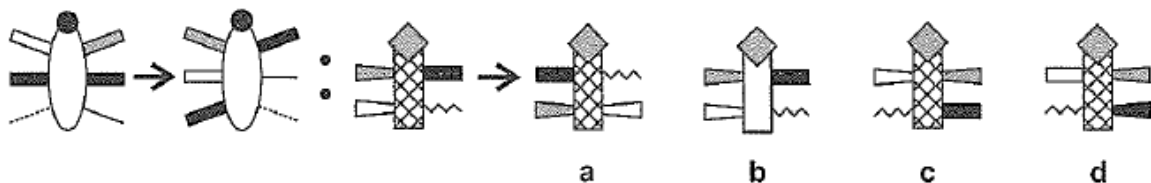
26. Look at how the first bug changes to become the second bug. Then work out which option would look like the third bug if you changed it in the same way.
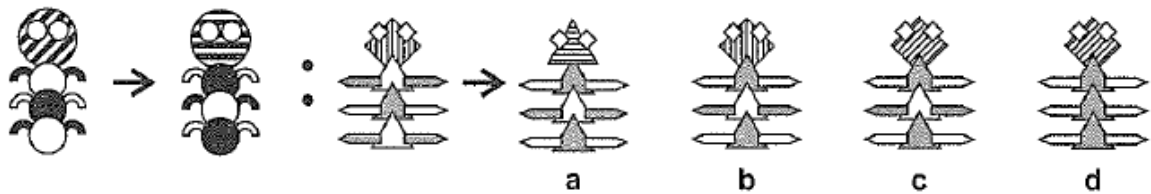
27. The first number in a pattern is 8. Each following number is found by subtracting 9 from the previous number. What is the sixth number in the pattern ?

A. − 28   B. − 37   C. − 39   D. − 46   E. − 33

**28.** Work out which of the options best fits in place of the missing hexagon in the grid.
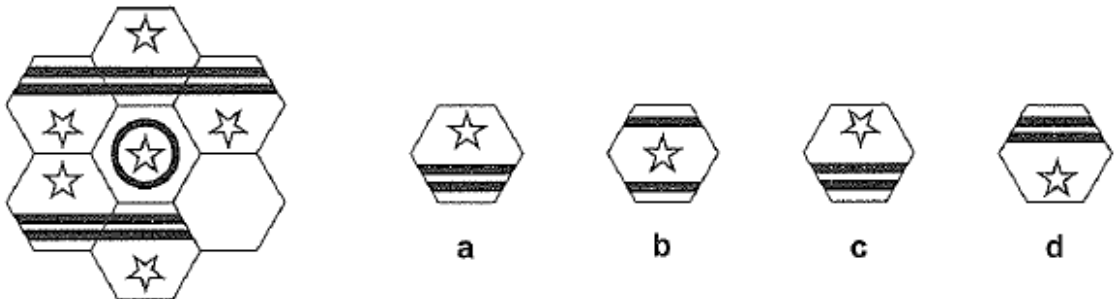
29. Work out which of the options best fits in place of the missing hexagon in the grid.
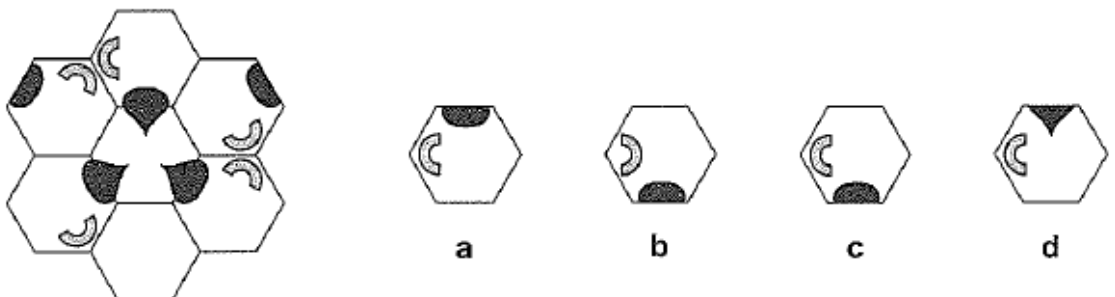
30. Eight players have entered a tennis tournament. If each player plays each of the other platers only once, how many matches will be played in total ?

A. 28   B. 32   C. 40   D. 56   E. 64

31. Work out which option is a top-down 2D view of the 3D figure on the left.
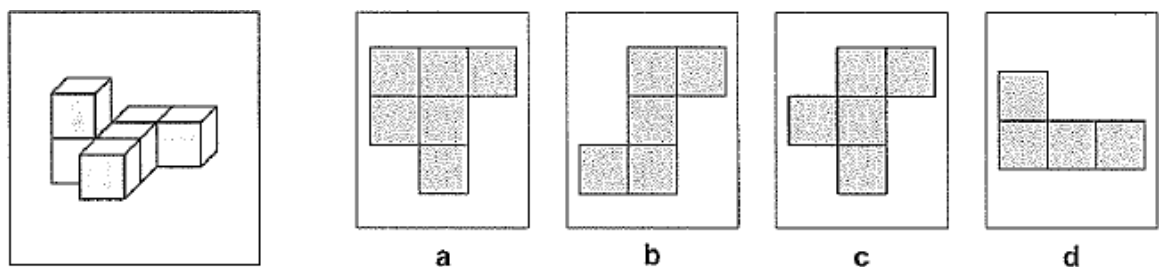
32. Work out which option is a top-down 2D view of the 3D figure on the left.
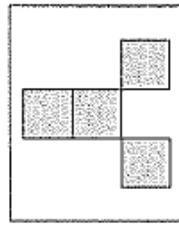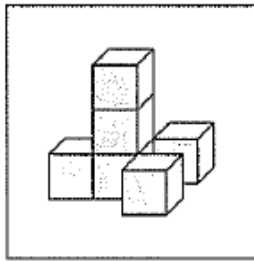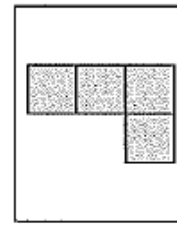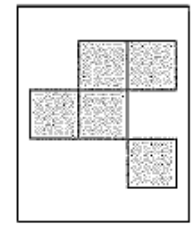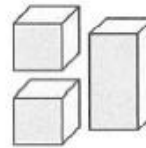

a　　　**b**　　　**c**　　　**d**

33. In a class of 24 pupils, there are ten boys and fourteen girls. The boys had an average test score of 72 while the girls averaged 75. What is the average test score of the whole class ?

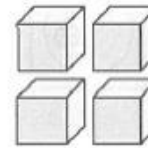**A.** 73 **B.** 73.25 **C.** 73.5 **D.** 73.75 **E.** 74

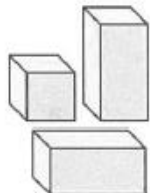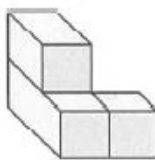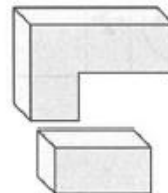**34.** Work out which set of blocks can be put together to make the 3D figure on the left.
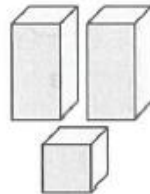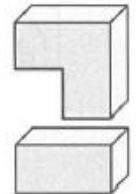
a　　　**b**　　　**c**　　　**d**

35. Work out which set of blocks can be put together to make the 3D figure on the left.
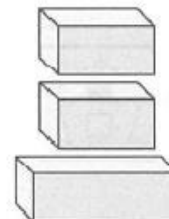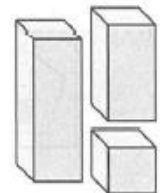
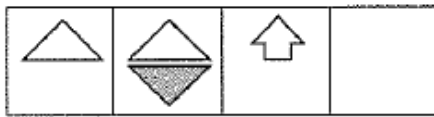**a**　　　**b**　　　**c**　　　**d**

36. Which situation results in a final value of zero ?

A. The temperature after a decrease of 5°C from a temperature of − 5°C.

B. The height of a plane after taking off from ground level and rising 100 metres.

C. The distance above sea level after rising 24 metres from a depth of 24 metres below sea level.

D. The change received from $20 after making a purchase of $10.

E. The number of students in a class of 23 if five students are absent.

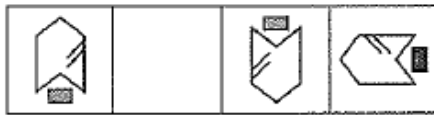**37.** Work out which of the options best fits in place of the missing square in the series.

38. Work out which of the options best fits in place of the missing square in the series.

39. The Weather Bureau has forecast a 20 % chance of rain on our school sports day.

What is the chance that it will not rain on the school sports day ?
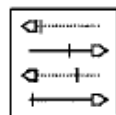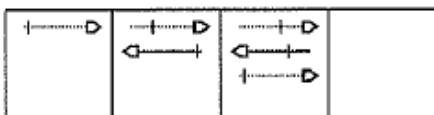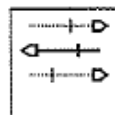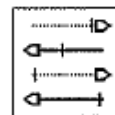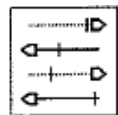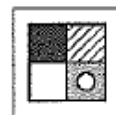
A. $\dfrac{1}{5}$　　　**B.** $\dfrac{6}{10}$　　　**C.** $\dfrac{2}{5}$　　　**D.** $\dfrac{5}{100}$　　　**E.** $\dfrac{4}{5}$

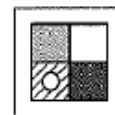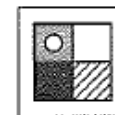**40.** Work out which of the options best fits in place of the missing square in the series.

41. Work out which of the options best fits in place of the missing square in the series.
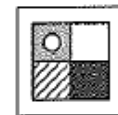
42. If 20 % of a number is 80, what is $\dfrac{3}{8}$ of the same number ?
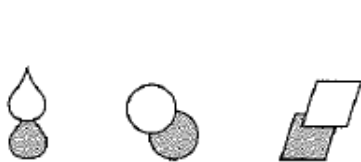
A. 400　　　**B.** 150　　　**C.** 16　　　**D.** 250　　　**E.** 60

43. Work out which option is most like the three figures on the left.

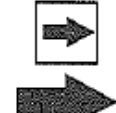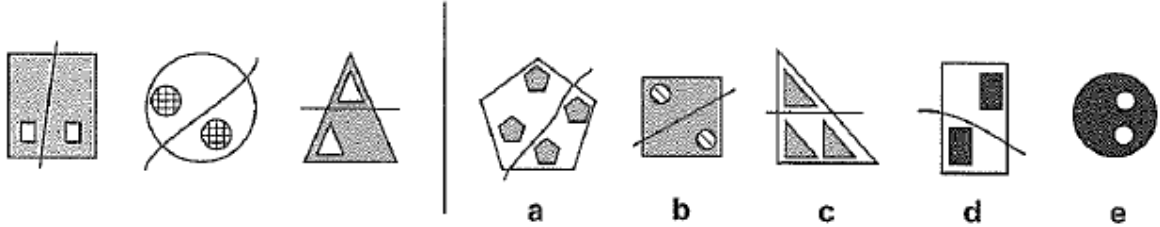**44.** Work out which option is most like the three figures on the left.

45. What is the next fraction in this number pattern ?

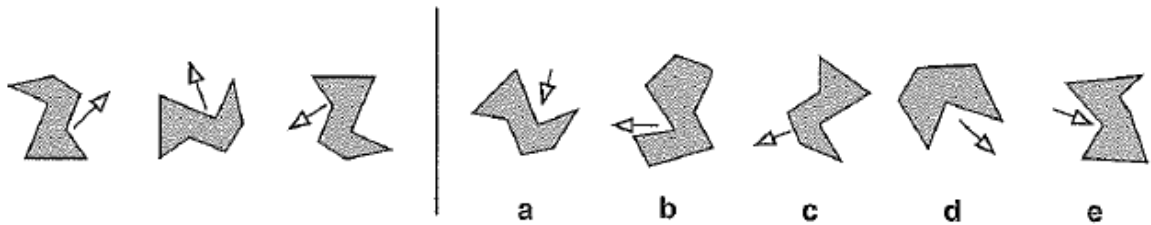$$\frac{1}{5} \qquad \frac{7}{20} \qquad \frac{1}{2} \qquad \frac{13}{20} \qquad ?$$

A. $\frac{3}{5}$ **B.** $\frac{7}{10}$ **C.** $\frac{4}{5}$ **D.** $\frac{9}{10}$ **E.** 1

46. Work out which option is most like the three figures on the left.
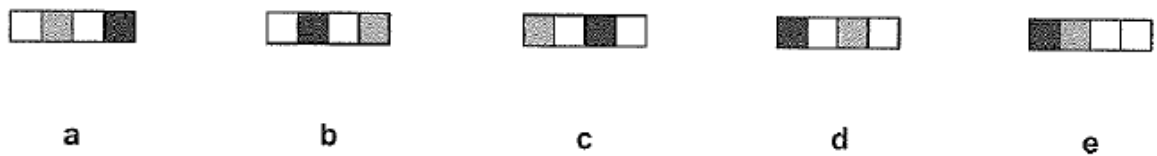

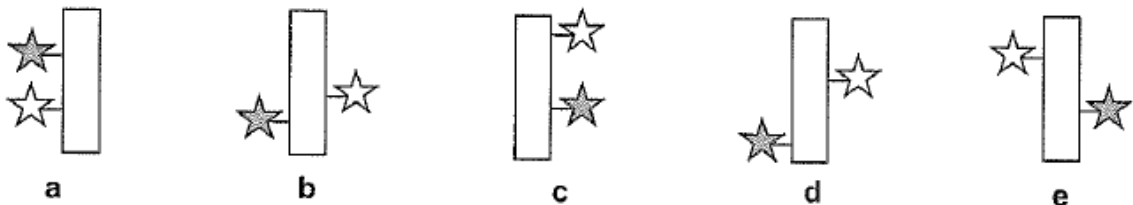**47.** Work out which option is most like the three figures on the left.

48. The ratio of 36 seconds to 6 hours is:

A. 6 : 1 **B.** 1 : 6 **C.** 1 : 60 **D.** 1 : 600 **E.** 36 : 6

49. Find the figure in each row that is most unlike the others.

50. Find the figure in each row that is most unlike the others.

51. The temperature at Mt Buller is 4.8° C at midday. The temperature falls steadily by 0.6° C per hour. What is the temperature at 2 am the following morning ?

A. − 3.6° C **B.** − 2.6° C **C.** − 8.4° C **D.** − 4.8° C **E.** − 3.4° C

52. Find the figure in each row that is most unlike the others.

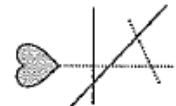**53.** Find the figure in each row that is most unlike the others.


54. In the first semester test, Douglas scored 37 out of 50, while in the second semester test, he scored 59 out of 80. Which of the following statements correctly compares his second semester result with his first semester result ?
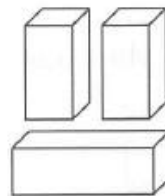
A. increased by $\frac{1}{4}$ %　　　**B.** decreased by $\frac{1}{4}$ %　　　**C.** same result

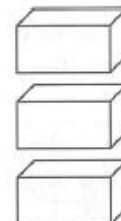**D.** increased by 25 %　　　**E.** increased by $\frac{3}{4}$ %

55. Work out which set of blocks can be put together to make the 3D figure on the left.
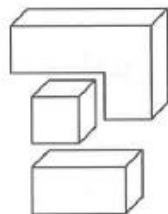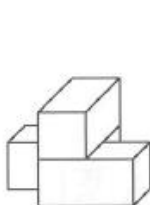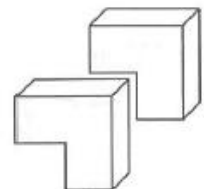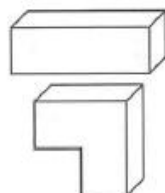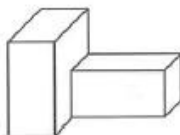

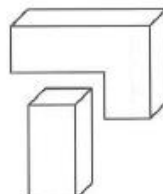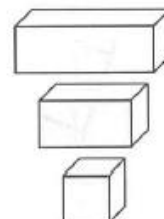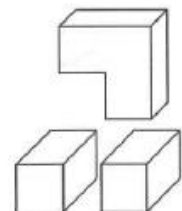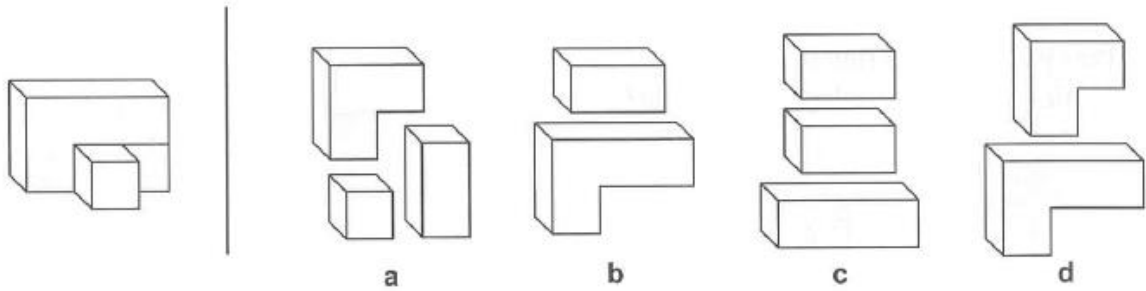**56.** Work out which set of blocks can be put together to make the 3D figure on the left.
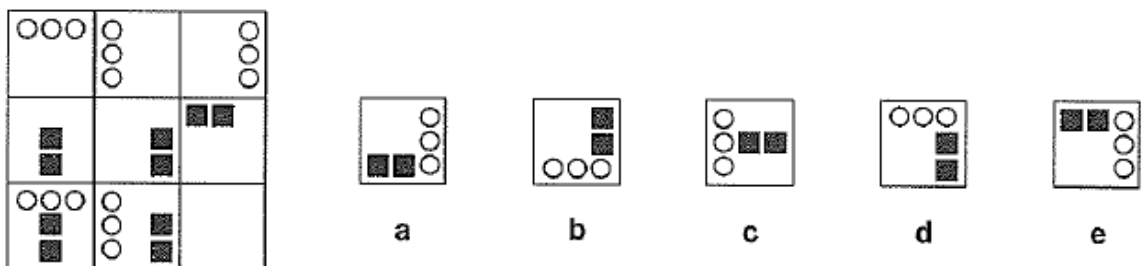
57. Work out which set of blocks can be put together to make the 3D figure on the left.

58. How many whole numbers between 100 and 1000 contain only the digits 7, 8 or 9 ?

A. 9 **B.** 36 **C.** 18 **D.** 24 **E.** 27

59. Work out which of the options best fits in place of the missing square in the grid.

60. Work out which of the options best fits in place of the missing square in the grid.