

Based on 2005 SAT Paper A

1a)

Join the numbers that have a difference of 30.

75

50

90

40

35

70

45

65

20

1b)

Join the numbers that have a total of 100.

75

50

90

40

35

65

25

60

10

1c)

Join the numbers that have a total of 100.

38

58

67

18

37

53

33

82

62

1d)

Join the numbers that have a product of 100.

20

10

25

35

50

10

5

2

4

2 Circle three numbers from each row whose total makes a multiple of ten.

- a) 17 18 19 20 21 22 23
- b) 27 28 29 30 31 32 33
- c) 45 48 51 54 57 60 63
- d) 85 48 37 33 21 18 7
- e) 99 183 291 395 487 598 699

3 Circle four numbers that make a multiple of 20.

- a) 57 59 60 62 64 68 69
- b) 88 89 90 91 92 93 94
- c) 248 249 250 251 252 253 254

4. Below is a timetable for a radio station.

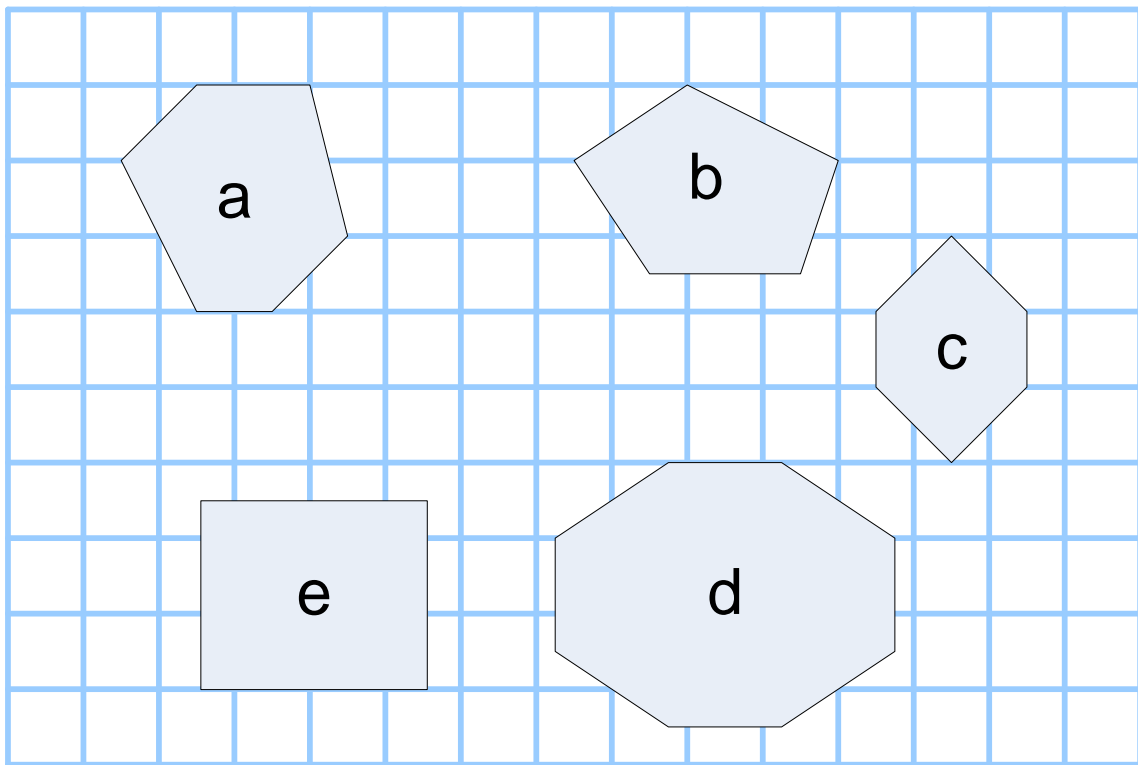
7:00 *Music show*
7:55 *Weather report*
8:00 *News*
8:15 *Travel news*
8:25 *Sport*
8:45 *Holiday programme*

- a) Joshua switches on the radio at quarter to eight. How long does he have to wait for the weather report?
- b) For how long does the travel news last?
- c) Sarah switches on the radio at quarter to nine. She was hoping to catch the news. How late is she for the start of the news?
- d) For how long does the Music Show last?
- e) The Holiday Programme lasts twice as long as the Sport Programme. What time does the Holiday Programme finish?

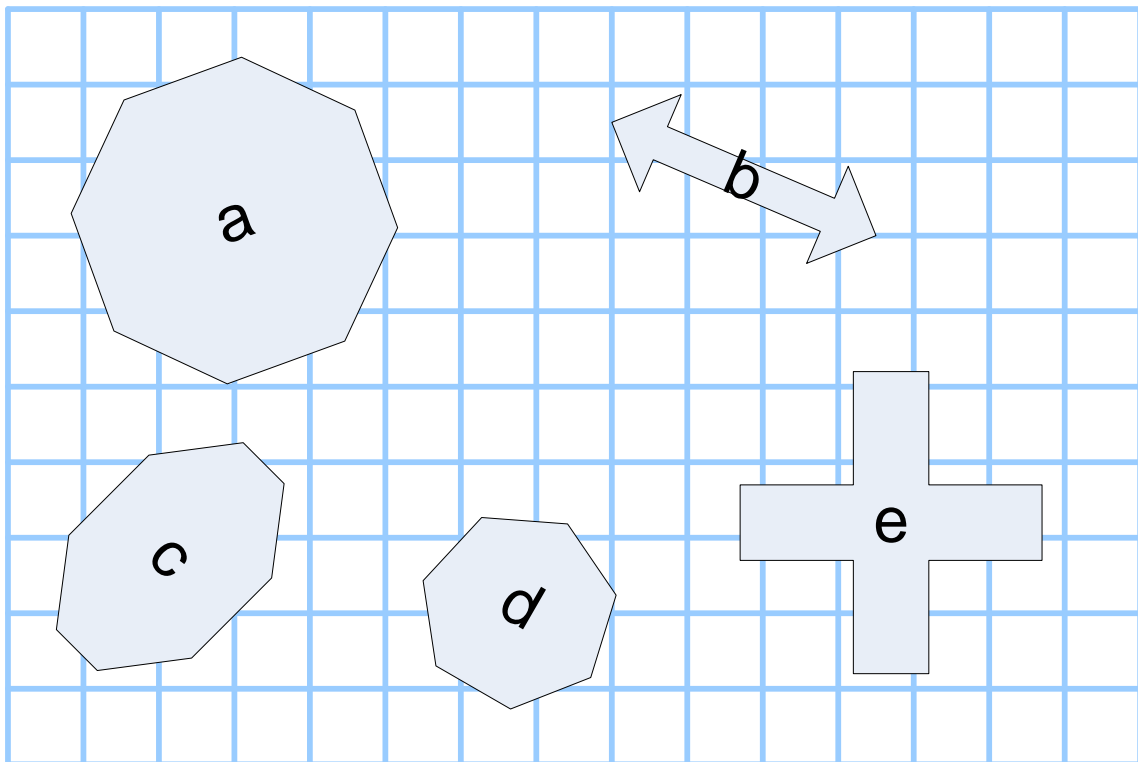
5) Calculate:

- a) $4872 \div 3 =$ b) $9281 \div 4 =$ c) $8938 \div 5 =$ d) $92913 \div 2 =$
- e) $3829 \times 7 =$ f) $8392 \times 8 =$ g) $3829 \times 9 =$ h) $19391 \times 6 =$

6a) Write the letters of the shapes that are hexagons.



6b) Write the letters of the shapes that are octagons.



7) The table below shows the prices of different candles:

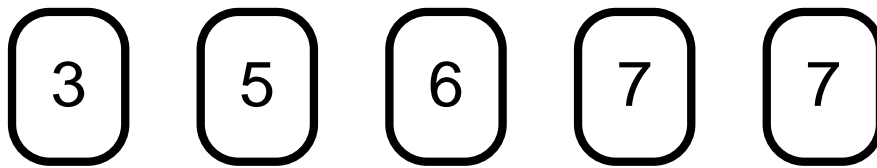
Type of Candle	Cost of unscented Candle	Cost of Perfumed Candle
Star	35p each	40p each
Striped	45p each	50p each
Plain	20p each	25p each

- a) How much would three plain unscented candles cost ?
- b) How much change would you get from a five pound note if you purchased three plain perfumed candles and two striped unscented candles?
- c) Emily bought two of each type of perfumed candle. She paid with a ten pound note. How much change did she get?
- d) Jack bought four striped unscented candles and two striped perfumed candles. Holly bought six starred perfumed candles. Who paid the most and by how much?
- e) Thomas bought twelve plain unscented candles and then sold eleven of them at a car boot sale of 35p each. How much profit did Thomas make?
- f) Ellie had £8. She wanted to buy perfumed striped candles. How many could she afford?
- g) Chene bought seven unscented candles, three of which had stars on them. Altogether, she paid £2.35 for her seven candles. How many of each type of candle did she buy?

8) Calculate

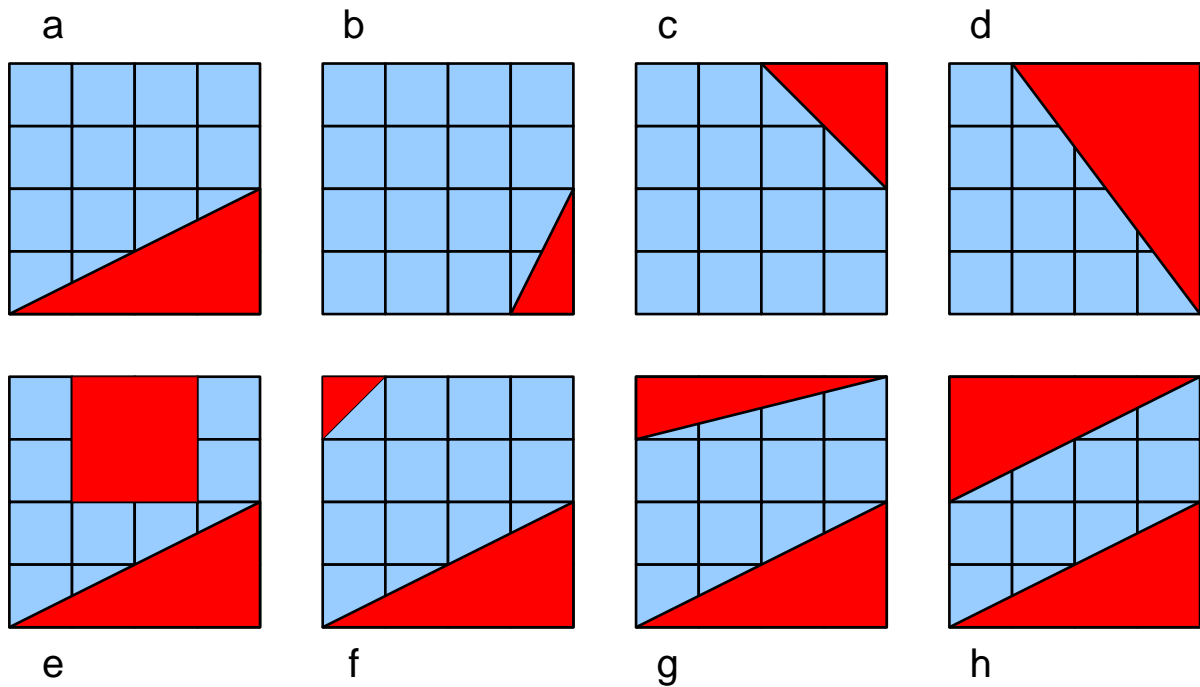
- a) $4829 + 9 + 281 + 29 =$
- b) $920 + 2819 + 28 + 7 =$
- c) $28190 + 2920 + 912 + 81 + 5 =$
- d) $39201 + 839 + 2910 + 28 + 9 =$
- e) $8000 - 482 =$
- f) $3800 - 78 =$
- g) $2900 - 173 =$
- h) $14300 - 5928 =$
- i) $829 - 1000 =$
- j) $9400 - 12000 =$
- k) $92 - 4921 =$
- l) $194 - 2084 =$

9) Below are some digit cards.



- Write all the numbers greater than 7,000 that you can make with these digit cards.
- What is the closest number you can make to 5,000 with these cards?
- What is the lowest number you can make with these cards?
- What is the difference between the highest and the lowest numbers that you can make with these digit cards?
- Using three of the cards, make the number closest to 400 that you can.
- What is the sum of all the digits?

10) What fraction is shaded red of each of the shapes below:



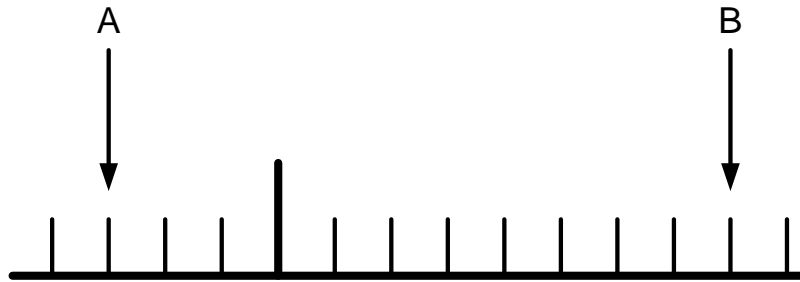
11) Calculate the answers to following equations.

- | | | |
|--------------------------|-------------------------|--------------------------|
| a) $(4 + 6) \div 5 =$ | b) $4 + (6 \div 5) =$ | c) $12 \times (3 + 2) =$ |
| d) $(12 \times 3) + 2 =$ | e) $(9 \times 3) + 3 =$ | f) $9 \times (3 + 3) =$ |

12) Put these fractions into order of size beginning with the lowest number first.

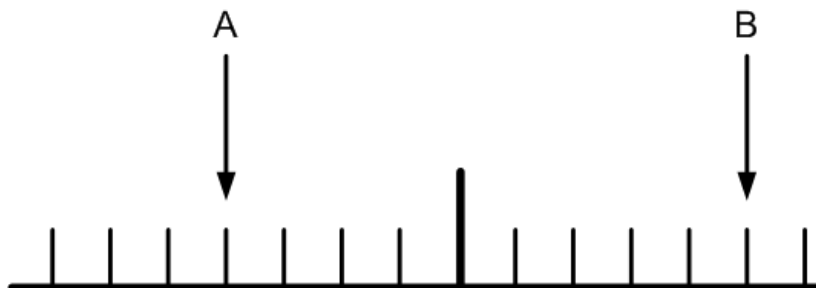
$$\frac{3}{4} \quad \frac{4}{5} \quad \frac{7}{10} \quad \frac{5}{8} \quad \frac{1}{2}$$

13) A and B are two points on a number line.

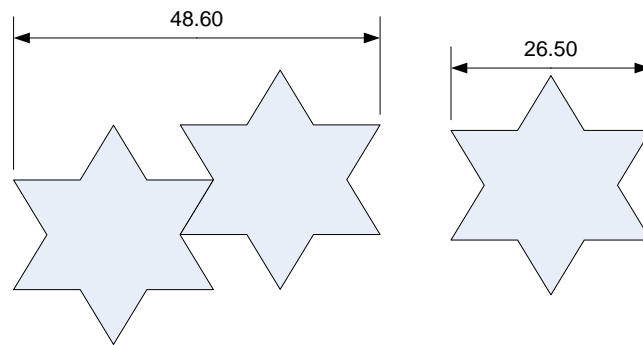


a) On the scale above, the difference between A and B is 55. The thick black mark marks 100. What is the value of A and what is the value of B?

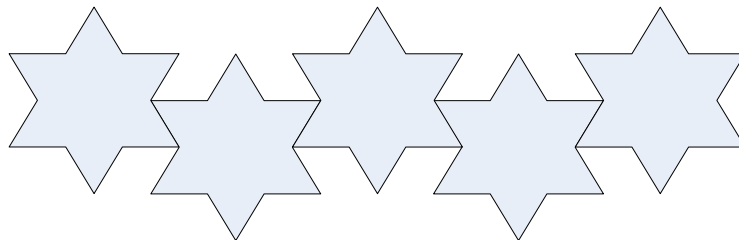
b) On the scale below, the difference between A and B is 90. The thick black line marks 200. What is the value of A and B?



14) Below are some stars. The dimensions are given in mm.



a) How long would five stars measure?



b) How much would twelve stars measure?

c) How many stars would you be able to fit along a 442mm line?

d) Can you figure out a formula to tell us how much any number of stars will measure?

e) Below are some crosses. The dimensions are given in mm. How long would the line be for 35 crosses?

