




**ELITE MATHS**  
SIMPLIFY  
ASSESSMENTS

**YEAR** 2020 v1

# 9 NUMERACY

NON - CALCULATOR 

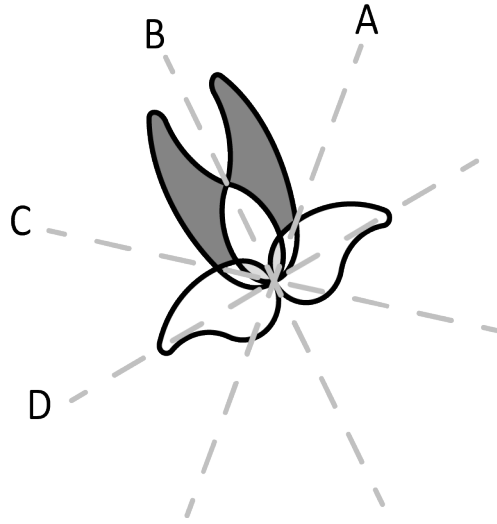
Use 2B or HB pencil **ONLY**



# 40<sub>min</sub>

Time available for students to complete test: 40 minutes

4



Which line is a line of symmetry?

- A       B       C       D

5  $(10 + 2) \times 2$    $(24 \div 4) + 13$

Which symbol should be used to make this number sentence true?

- =       >       <

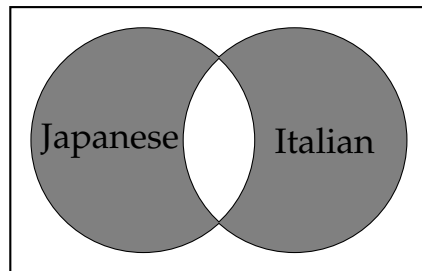
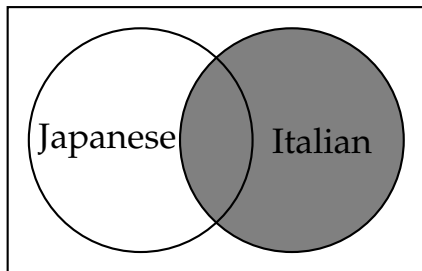
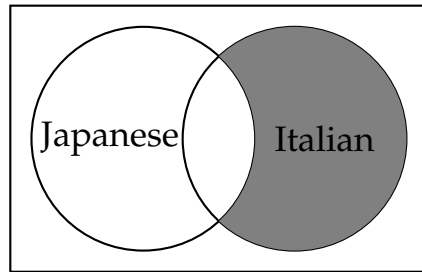
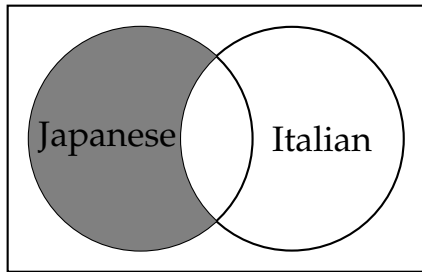
6 Which distance is the shortest?

- 13 000 cm       0.12 km       155 m       176 700 mm

19

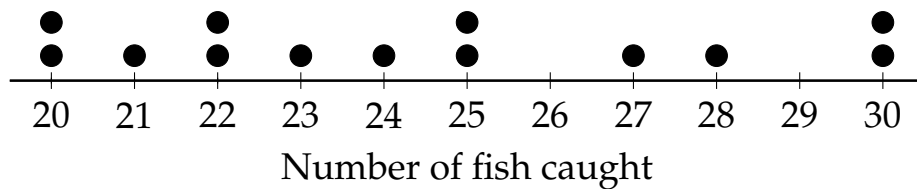
A company wants to find out the number of employees who can speak only Italian and not Japanese.

Which shaded region in the Venn diagrams represents this information?



20

The following dot plot shows the number of fish Hugh caught in fishing tournaments.



What is the median number of fish that Hugh caught?

21



22



23



24



23

Carolina boarded a night train.

Her train departed at 10:30 pm.

It arrived at the destination at 6:45 am the next day.

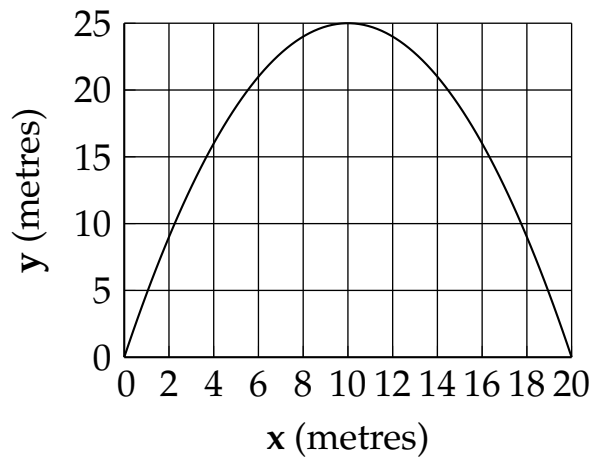
How long did Carolina's train trip take?

- 6 hours and 45 minutes
- 7 hours and 15 minutes
- 8 hours and 15 minutes
- 9 hours and 15 minutes

24

The graph below represents the opening of an arch-shaped tunnel.




$x$  is the width of the tunnel in metres from its bottom left corner and  $y$  is the height of the tunnel in metres.




Which statement is true?

- The maximum height of the tunnel is 20 metres
- The maximum width of the tunnel is 25 metres
- The maximum height of the tunnel occurs when  $x = 10$
- A truck of a maximum height 27 metres can go through this tunnel



**28**  = 20,  = 40,  = 60

Therefore,  is worth 60 points.

**29**  $\frac{9000 \text{ m}}{4.5 \text{ min} + 5.5 \text{ min}} = \frac{9000 \text{ m}}{600 \text{ second}} = 15 \text{ metres per second.}$

**30** The slope of the line is  $\frac{3000 - 500}{1 - 5} = -625.$

The number sold at \$1 is 3000.

Therefore, the number sold at \$2 is  $3000 - (2 - 1) \times 625 = 2375$

**31**  $1 \times 3 + 4 \times 1.5 + 2.5 \times 2 = 14 \text{ m}^2$

**32** The perimeter of the shape is 16 m.

Let the scale factor be  $k$ .

Since the perimeter of the enlarged shape is 80 m

$16 \times k = 80$ , which gives  $k = 5$ .