NAPLAN*-style

YEAR 7

SAMPLE TEST

NUMERACY
Non-calculator

FIRST NAME _____

LAST NAME _____

CLASS _____

SESSION 2

0:40 Time available for students to complete the Numeracy Test: 40 minutes

Use 2B or HB pencil **only**.

1 6.84, 6.42, 6.00, 5.58, 5.16, ...

What rule is followed in this number pattern?

○ The numbers increase by 0.46.

○ The numbers decrease by 0.42.

○ The numbers decrease by 0.44.

○ The numbers decrease by 0.48.

Fill in one circle.

2 Which of these events is most likely if I throw a die?

○ It would land with one dot on top.

○ It would land with one or two dots on top.

○ It would land with four dots on top.

○ It would land with one, two or four dots on top.

3 What is the proper fraction for $\frac{7}{2}$?

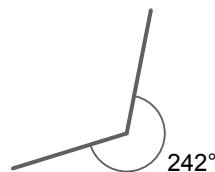3 $3\frac{1}{4}$ $3\frac{1}{2}$ $3\frac{3}{4}$

○   ○   ○   ○

4 Which expression is true?

○ $43\,579 > 24\,634$ ○ $43\,579 < 24\,634$

○ $43\,579 = 24\,634$ ○ $24\,634 \neq 24\,634$

5 What sort of angle is this?

○ It is an obtuse angle.

○ It is an acute angle.

○ It is a reflex angle.

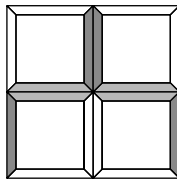○ It is a right angle.

242°

6 Here is a pattern of symbols.

☆, ☆☆, ☆☆☆, ☆☆☆☆☆, ☆☆☆☆☆☆☆☆, **?**
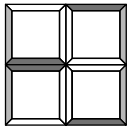
Which pattern comes next in the series?

○ ☆☆☆☆☆☆
☆☆☆☆☆☆
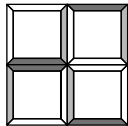
○ ☆☆☆☆☆
☆☆☆☆☆☆☆☆

○ ☆☆☆☆☆☆
☆☆☆☆☆☆☆☆

○ ☆☆☆☆☆☆☆
☆☆☆☆☆☆☆☆☆☆

7 Here are some blocks.

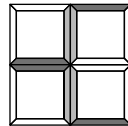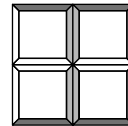Which one of the four rotated patterns below is the same as the one shown? Is it A, B, C or D?

A   B   C   D

○   ○   ○   ○

8 Here is a sum with some numbers missing.
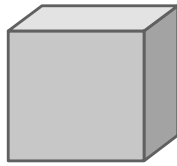
$$\boxed{?} \times \boxed{?} - 6 = 19$$

What number should be in place of the question mark?

Write your answer in the box.

YEAR 7 NUMERACY

9 The volume of this cube is 216 cm^3. What is the length of its sides?
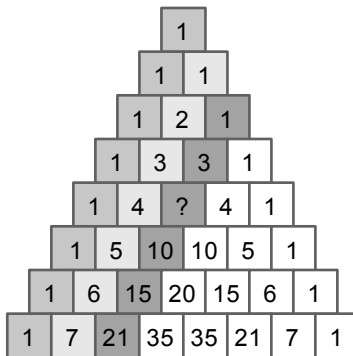
Not to scale

4 cm	6 cm	8 cm	12 cm
○	○	○	○

10 What number is in place of the question mark in this triangle of numbers?

```
            1
          1   1
        1   2   1
      1   3   3   1
    1   4   ?   4   1
  1   5  10  10   5   1
1   6  15  20  15   6   1
1  7  21  35  35  21  7  1
```
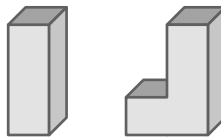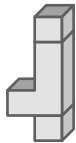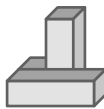
3	4	5	6
○	○	○	○

11 These two blocks are joined.

Which group below is **not** made from these two blocks?

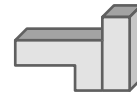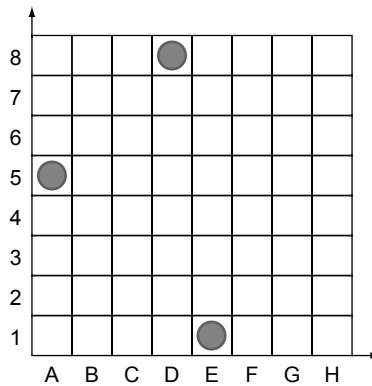| A	B	C	D
○	○	○	○
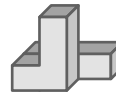
12 We can flip, slide or turn shapes.

Have we done a flip, slide or a turn (rotation) with this coloured shape?

Fill in one circle.

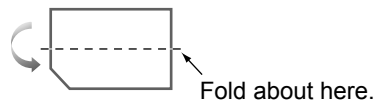- ○ flip horizontal
- ○ flip vertical
- ○ turn
- ○ slide

13 A rectangle is being drawn on this grid. Three of the corners have been drawn.

Where will the other corner for the rectangle be drawn?

H3	H4	G3	G4
○	○	○	○

14 I folded this pattern in half.

Fold about here.

Which shape could I see?

A	B	C	D
○	○	○	○

15 Here is a chart with some symbols. They are located on a grid.

Fill in one circle.

Which symbol is closest to B3?

A   B   C   D

○   ○   ○   ○

16 Which of the pictures shows a tessellation?

A   B   C   D

○   ○   ○   ○
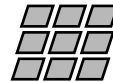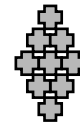
17 Look at the drawing. There is a pattern but one part is missing. This is shown with a question mark (?).
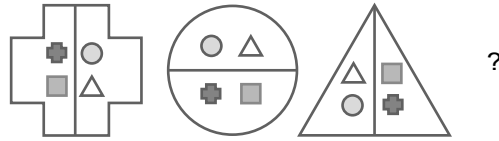
Pick which piece (A, B, C or D) will complete the pattern.
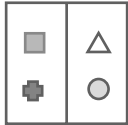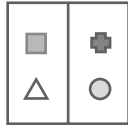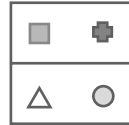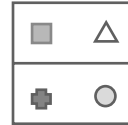
A   B   C   D
○   ○   ○   ○

18 This net is folded to make a solid.

Net

Fold along the dotted lines.
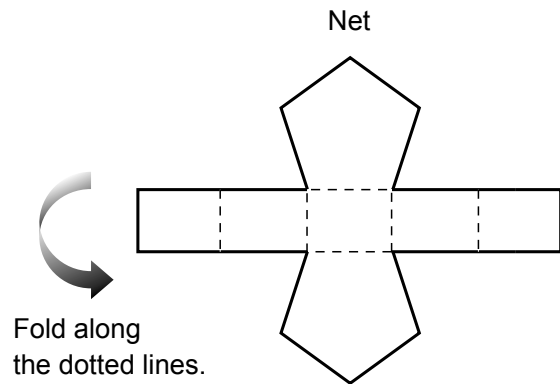
Which solid matches the net above?

Solid shapes
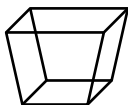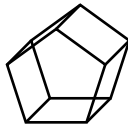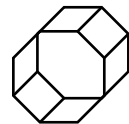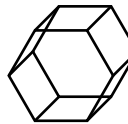
A   B   C   D
○   ○   ○   ○

19 Which fraction has the same value as $3\frac{3}{4}$?

$\dfrac{13}{4}$ $\dfrac{33}{4}$ $\dfrac{15}{4}$ $\dfrac{9}{4}$

○   ○   ○   ○

20 Here is an electricity bill. It shows how much energy was used and the cost.

Meter	Energy used (kilowatt hour)	Rate	Cost
Off-peak	240	5 cents	$12.00
Shoulder energy	800	10 cents	$80.00
Peak energy	?	30 cents	
TOTAL			$242.00

How much peak energy was used? This belongs where the question mark is in the table. (Hint: first find the cost of peak energy used.)

400	500	600	700
○	○	○	○

21 Here are some descriptions.
These chances are numbered from 0 to 1.

1	Certain
0.75	Quite likely to occur
0.5	An even chance
0.25	Unlikely to happen
0	Impossible

There are some sentences below. Put a 1 next to the sentence if something is certain; put 0.75 if something is quite likely to happen; put 0.5 if it is an even chance; put 0.25 if it is unlikely to happen; and put 0 if something is impossible.

Chance	Sentence
	A number chosen at random is likely to be an odd number.
	When throwing a die you will get a number less than or equal to 6.
	Four or more objects are selected from a group of three.
	Some people in Australia will starve.
	Someone in your class at school will one day become president of the United States.

Write your answers in the spaces.
Write only the numbers 1 to 5.

22 This map shows the time in Perth and in Italy.

Italy
2:12 am
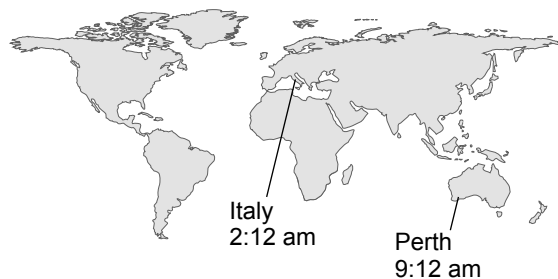
Perth
9:12 am

When it is 1:15 pm in Perth, what time will it be in Italy?

6:15 pm	9:15 pm	9:15 am	6:15 am
○	○	○	○

23 There is a pattern in these numbers. If you do the same things to the numbers in each row, you will get the same answer for each row. What number will go in place of the question mark?

```
6   3   4
8   3   10
5   3   1
?   5   6
```

4	5	6	7
○	○	○	○

24 Which statement is definitely true about the angles in this quadrilateral?

Not to scale

$f°$

$e°$

$c°$

$d°$

○ $c° + d° + e° + f° = 180°$

○ $c° + d° + e° + f° = 360°$

○ $c° + d° = 180°$

○ $e° + f° = 180°$
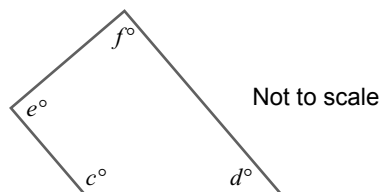
25 Which fraction is midway between $\frac{5}{8}$ and $\frac{3}{4}$? (Hint: use sixteenths.)

26 What is 8.8 divided by 0.2?

4.4	44	5.4	54
○	○	○	○

27 The temperature is measured at different points on Mt Everest. The temperature at Summit 1 is 17° colder than at the base. The temperature at Summit 2 is 3° colder than at Summit 1.

In April the temperature was –12°C at the base camp. What was the temperature at Summit 2?

–29°C	–30°C	–31°C	–32°C
○	○	○	○

28 What is the approximate angle between the hour hand and the minute hand on this pocket watch?

20°	120°	90°	95°
○	○	○	○

29 This puzzle shows some objects. The objects stand for numbers.

The total of the numbers in each row and in each column is shown for you.

🔔	♫	🔔	12
🎖	🎖	🎖	30
🔔	♫	🎖	17
20	14	25	

What is the value of the ♫ in this puzzle?

5	2	10	12
○	○	○	○

30 There are two cars that are 375 kilometres apart. They are heading towards each other on the same road. The first car is travelling at 30 kilometres per hour; the second car is travelling at 45 kilometres per hour.

After how long will they meet?

5 hours	6 hours	7 hours	8 hours
○	○	○	○

31 We can add the numbers in order, like this:

$1 + 2 = 3$

$1 + 2 + 3 = 6$

$1 + 2 + 3 + 4 = 10$

$1 + 2 + 3 + 4 + 5 = 15$, and so on.

Fill in one circle.

What is the sum of all the numbers from 1 to 100? (Hint: you need to work out a way of doing this. Try to work out how to do this with the first few numbers up to 10.)

10 100	5050	100 100	9500
○	○	○	○

32 You have 8 weights. One is heavier than the rest. What is the minimum amount of 'weighings' (with a see-saw scale) you need to do to make sure that you find the heaviest weight?

5	7	2	3
○	○	○	○

END OF TEST

Non-calculator

1. The numbers decrease by 0.42.

2. It would land with one, two or four dots on top.

3. $3\frac{1}{2}$

4. $43\,579 > 24\,634$

5. It is a reflex angle.

6. ☆☆☆☆☆
   ☆☆☆☆☆☆☆

7. C

8. 5

9. 6 cm

10. 6

11. A

12. flip horizontal

13. H4

14. C

15. D

16. A

17. C

18. B

19. $\frac{15}{4}$

20. 500

21. We have listed what we think are the chances.

Chance	Sentence
0.5	A number chosen at random is likely to be an odd number.
1	When throwing a die you will get a number less than or equal to 6.
0	Four or more objects are selected from a group of three.
0.75	Some people in Australia will starve.
0.25	Someone in your class at school will one day become president of the USA.

22. 6:15 am

23. 4

24. $c° + d° + e° + f° = 360°$

25. $\frac{11}{16}$ (or $\frac{21}{32}$ to $\frac{23}{32}$ or even $\frac{41}{64}$ to $\frac{47}{64}$)

26. 44

27. –32°C

28. 120°

29. 2

30. 5 hours

31. 5050

32. 2

* This is not an officially endorsed publication of the NAPLAN program and is produced by Pascal Press independently of Australian governments.