acara AUSTRALIAN CURRICULUM, ASSESSMENT AND REPORTING AUTHORITY

NATIONAL ASSESSMENT PROGRAM
LITERACY AND NUMERACY

YEAR
7
2011

# NUMERACY
## CALCULATOR ALLOWED

SESSION 1

0:40

Time available for students to complete test: 40 minutes

Use 2B or HB pencil **only**

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Do not write on this page.

## PRACTICE QUESTIONS

**P1**

50, 100, 150, 200, 250, **?**

Shade one bubble.

Which number comes next in this sequence?

| 251 | 260 | 300 | 350 |
|---|---|---|---|
| ⬭ | ⬭ | ⬭ | ⬭ |

**P2**

Write your answer in the box.

Dave had $5.75.
He spent $1 and then spent 75 cents.

How much money does he have left?

$ ☐

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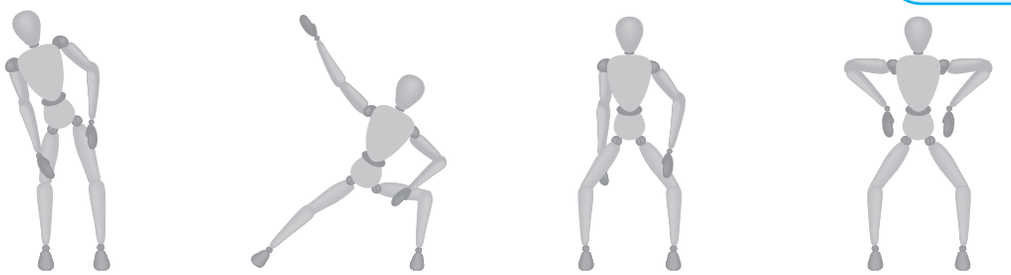
**1** Which of these dance positions has one line of symmetry?

Shade one bubble.



**2** The diagram shows the number of nuclear power stations in four countries.

| | |
|---|---|
| France | ⚛ ⚛ ⚛ |
| Japan | ⚛ ⚛ ⚛ |
| Russia | ⚛ ⚛ |
| Germany | ⚛ |

| Key |
|---|
| ⚛ = 20 nuclear power stations |

Which country has about 50 nuclear power stations?

France ○ Japan ○ Russia ○ Germany ○

**3** Ann saves $15 each month.

How many months will it take Ann to save a total of $300?

4 months ○ 8 months ○ 20 months ○ 25 months ○

**4** Rose walked 5185 steps and Liv walked 3147 steps in a day.

How many more steps did Rose walk than Liv?

8332 ○ 2048 ○ 2042 ○ 2038 ○

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**5** Emma has $1.25 in coins.

What is the **least** number of coins she can have?

Shade one bubble.

2 ⬭ 3 ⬭ 4 ⬭ 5 ⬭

**6** What number makes this number sentence correct?

$1.6 \times \boxed{?} = 4.48$

2.8 ⬭ 2.88 ⬭ 6.08 ⬭ 7.168 ⬭

**7** Peter bought some packs of plastic forks and spoons for a party.

**20 Plastic Forks**

$1.50 per pack

**15 Plastic Spoons**

$1.25 per pack

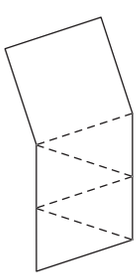
This is how he worked out the cost:

$(6 \times \$1.50) + (4 \times \$1.25) = \$14$

How many packs of plastic **spoons** did Peter buy?

4 ⬭ 5 ⬭ 6 ⬭ 9 ⬭

**8** Which of these drawings is a net of a pyramid?



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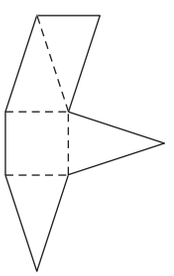

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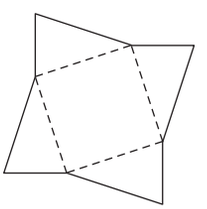

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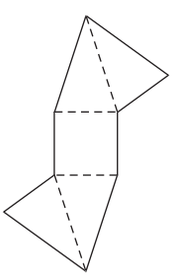

⬭

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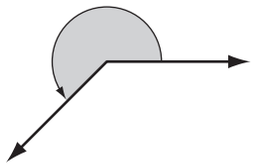
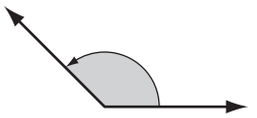
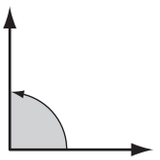
**9** Which angle is closest in size to 140° ?

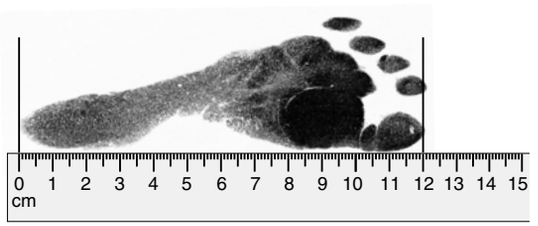
**Shade one bubble.**

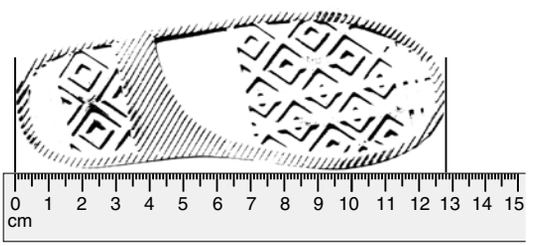






**10** Trudie measured her footprint.
She then measured her shoe print.




How much longer is her shoe than her foot?

0.08 cm  0.8 mm  8 mm  8 cm

**11** Emily made a triangle using wire.
It had a perimeter of 20 cm.

Which of these could be the side lengths of her triangle?

- 6 cm, 6 cm, 8 cm
- 5 cm, 5 cm, 10 cm
- 4 cm, 4 cm, 12 cm
- 3 cm, 3 cm, 14 cm

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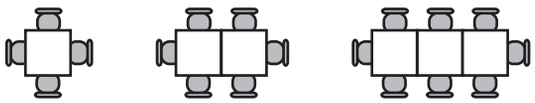
**12** Miriam owns a restaurant.
She sets up rows of tables and chairs as shown.

Shade one bubble.

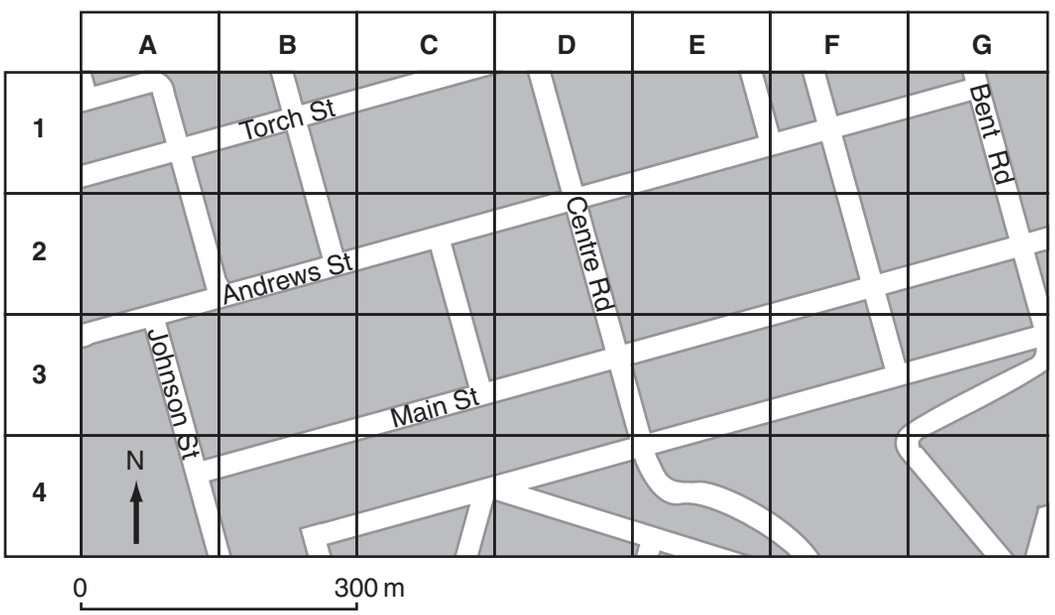


4 6 8

Which of these rules can be used to work out how many chairs will be needed on any row of tables?

- ⬭ *number of tables* × 4
- ⬭ *number of tables* ÷ 2 – 2
- ⬭ *number of tables* × 2 + 2
- ⬭ *number of tables* × 2 – 2

**13** This is a map of where Jane and Kate live.




Jane is on the corner of Main St and Johnson St (map reference A4).
She walks 850 metres along Main St to Kate's house.

What is the map reference of Kate's house?

D3 ⬭ E3 ⬭ F1 ⬭ G2 ⬭

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**14** Which of these numbers is a prime number?

**Shade one bubble.**

| 9 | 29 | 39 | 49 |
|---|---|---|---|
| ⬭ | ⬭ | ⬭ | ⬭ |

**15**

| Internet use in Australia | | | | |
|---|---|---|---|---|
| **Year** | 2003 | 2004 | 2005 | 2006 |
| **Number of people (millions)** | 12.21 | 13.27 | 13.60 | 14.28 |

Between 2003 and 2006, internet use in Australia increased by about

- ⬭ 0.5 million people.
- ⬭ 1 million people.
- ⬭ 2 million people.
- ⬭ 2.5 million people.

**16** ♦ and ☺ represent different numbers.

♦ + ☺ = 25 ♦ – ☺ = 5

What is ☺ equal to?

| 5 | 10 | 15 | 20 |
|---|---|---|---|
| ⬭ | ⬭ | ⬭ | ⬭ |

**17** Alex thinks of a regular 2D shape.
It has only 3 pairs of parallel sides.

The shape could be

- ⬭ a parallelogram.
- ⬭ a triangle.
- ⬭ an octagon.
- ⬭ a hexagon.

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**18** The table shows the distances of four past marathons.

Which marathon had the longest distance?

**Shade one bubble.**

| | Year of marathon | Distance (km) |
|---|---|---|
| ⬭ | 1906 | 41.86 |
| ⬭ | 1912 | 40.2 |
| ⬭ | 1920 | 42.75 |
| ⬭ | 1924 | 42.195 |

**19** Dustin collects football cards.
He sells some of his cards. The prices are listed here.

$3, $5, $5, $8, $8, $10, $10, $10, $40

What is their mean (average) price?

| $8 | $9 | $10 | $11 |
|---|---|---|---|
| ⬭ | ⬭ | ⬭ | ⬭ |

**20** John is three years younger than Mary.

Which statement is correct?

- ⬭ *Mary's age* + *John's age* = 3
- ⬭ *Mary's age* = *John's age* + 3
- ⬭ *John's age* – *Mary's age* = 3
- ⬭ *John's age* = *Mary's age* + 3

**21** Beth was given 6 minutes to complete a puzzle.
When she finished, there were 250 seconds left on the timer.

How long did Beth take to complete the puzzle?

- ⬭ 1 minute 50 seconds
- ⬭ 2 minutes 50 seconds
- ⬭ 3 minutes 50 seconds
- ⬭ 4 minutes 50 seconds

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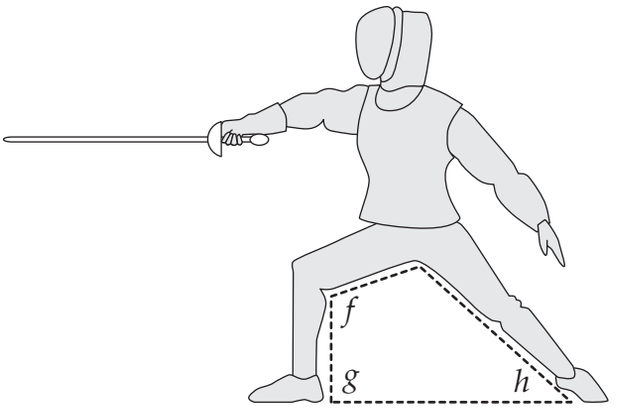
**22** This picture shows a position used in the sport of fencing.

**Shade one bubble.**




Which list shows the three angles $f, g, h$ in **increasing** order of size?

$h, g, f$ ⬭ $h, f, g$ ⬭ $g, f, h$ ⬭ $f, g, h$ ⬭

**23** This table shows the percentage of $1 million prize money awarded as first, second and third prizes.

**Write your answer in the box.**

| | Percentage of $1 million |
|---|---|
| First prize | 50% |
| Second prize | 30% |
| Third prize | 20% |

2000 people equally shared third prize.

How much did **each** third-prize winner get?

$ ☐

**24** The school librarian made this table of the number of books borrowed on one day.

| **Number of books borrowed per student** | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| **Number of students** | 20 | 16 | 8 | 6 | 3 |

What was the total number of books borrowed that day?

☐

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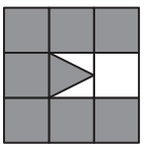
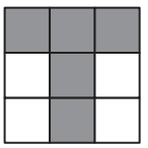
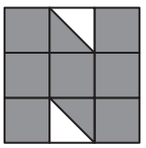
**25** Tam cuts letters from squares of metal.

Which of these letters uses exactly $\frac{5}{6}$ of the metal square?

**Shade one bubble.**



**26** A dance school teaches Hip Hop and Salsa.
One-quarter of all the students learn Salsa.
The rest of the students learn Hip Hop. No students learn both.

**Write your answer in the box.**

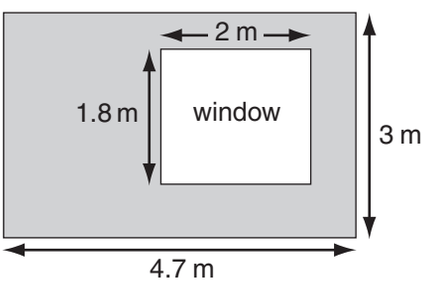
| | Hip Hop only | Salsa only |
|---|---|---|
| **Boys** | 95 | 24 |
| **Girls** | ? | 26 |

How many girls learn Hip Hop? ____

**27** Donna painted one rectangular wall of her bedroom.
The diagram shows the wall and window.
The window was **not** painted.

What area did Donna paint?

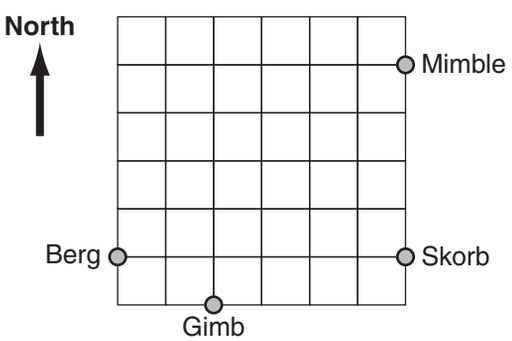
____ square metres




**28** On this map the town of Berg is 90 km from Skorb.
The town of Nunton is not shown on the map.
It is due north of Gimb and due west of Mimble.

What is the distance from Gimb to Nunton?

____ km

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**29** Kyle draws a quadrilateral with a perimeter of 30 centimetres.

**Write your answer in the box.**

What is the maximum possible area of Kyle's shape?

square centimetres

**30** The table shows the height of a burning candle at different times.

| Time (minutes) | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
|---|---|---|---|---|---|---|---|
| Height (cm) | 15 | 14.25 | 13.5 | 12.75 | 12 | 11.25 | 10.5 |

The candle burns until its height is 3 cm.

How many minutes does it take the candle to burn to a height of 3 cm?

minutes

**31** The lights in Ali's office are on for 40 hours per week, every week of the year.

Ali replaces a light globe after 8000 hours of use.

After how long, to the nearest year, will Ali need to replace the light globe?

years

**32** A plane was flying due north. It made these three course changes:

1. 15° right turn
2. 50° left turn
3. a final right turn until it was heading due east.

How many degrees did it turn the third time?

degrees

## STOP – END OF TEST

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