

# 1 Year 5 Math Screening Test

## 1.1 Whole Numbers

### 1.1.1 Level A

#### Question 1 (1 mark each)

Write the following as ordinary numerals:

1.  $(3 \times 1000) + (3 \times 10) + (3 \times 1) =$  \_\_\_\_\_
2.  $(5 \times 10000) + (5 \times 100) + (5 \times 10) =$  \_\_\_\_\_
3.  $(2 \times 100000) + (2 \times 1000) + (2 \times 1) =$  \_\_\_\_\_

### 1.1.2 Level B

#### Question 2 (1 mark each)

What is the place value of 7 in the following numbers:

1. 217102 \_\_\_\_\_
2. 154710 \_\_\_\_\_
3. 700005 \_\_\_\_\_

### 1.1.3 Level C

#### Question 3 (1 mark each)

Find the values of the following equations:

1.  $20018 - 19089 + 71 =$  \_\_\_\_\_
2.  $137 \times 26 + 26 \times 63 =$  \_\_\_\_\_
3.  $27 \div 9 \times 3 + 5 \times 6 =$  \_\_\_\_\_

## 1.2 Fractions

### 1.2.1 Level A

#### Question 4 (1 mark each)

Simplify the following fractions:

1.  $\frac{8}{1000} =$  \_\_\_\_\_

2.  $\frac{112}{128} =$  \_\_\_\_\_

3.  $\frac{118}{24} =$  \_\_\_\_\_

### 1.2.2 Level B

#### Question 5 (1 mark each)

Change the following to equivalent fractions:

1.  $\frac{2}{3} = \frac{\square}{84}$

2.  $\frac{3}{4} = \frac{\square}{144}$

3.  $\frac{3}{5} = \frac{75}{\square}$

### 1.2.3 Level C

#### Question 6 (1 mark each)

Find the values of the following fractions:

1.  $\frac{7}{12} + \frac{8}{48} =$  \_\_\_\_\_

2.  $1\frac{1}{12} - \frac{1}{6} =$  \_\_\_\_\_

3.  $2\frac{1}{5} \times 1\frac{2}{8} =$  \_\_\_\_\_

4.  $2\frac{1}{4} \div \frac{7}{8} =$  \_\_\_\_\_

### 1.3 Decimals

#### 1.3.1 Level A

**Question 7** (1 mark each)

Change the following decimals to fractions:

1.  $0.14 =$  \_\_\_\_\_

2.  $2.08 =$  \_\_\_\_\_

3.  $0.125 =$  \_\_\_\_\_

#### 1.3.2 Level B

**Question 8** (1 mark each)

Change the following fractions to decimals:

1.  $\frac{27}{1000} =$  \_\_\_\_\_

2.  $\frac{1}{8} =$  \_\_\_\_\_

3.  $1\frac{3}{20} =$  \_\_\_\_\_

#### 1.3.3 Level C

**Question 9** (1 mark each)

Find the values of following equations:

1.  $\$12.30 + \$7.20 + \$125.60 =$  \_\_\_\_\_

2.  $13.6 \times 1.7 =$  \_\_\_\_\_

3.  $25.02 - 15.08 =$  \_\_\_\_\_

## 1.4 Percentages

### 1.4.1 Level A

#### Question 10 (1 mark each)

Change the following fractions to percentages:

1.  $\frac{17}{1000} =$  \_\_\_\_\_

2.  $\frac{16}{50} =$  \_\_\_\_\_

3.  $\frac{1}{20} =$  \_\_\_\_\_

### 1.4.2 Level B

#### Question 11 (1 mark each)

Change the following percentages to fractions and write the answer in the simplest form:

1.  $42\% =$  \_\_\_\_\_

2.  $125\% =$  \_\_\_\_\_

3.  $0.5\% =$  \_\_\_\_\_

### 1.4.3 Level C

#### Question 12 (1 mark each)

Find the percentages of the quantities shown below:

1.  $35\% \text{ of } \$150 =$  \_\_\_\_\_

2.  $125\% \text{ of } \$80 =$  \_\_\_\_\_

3.  $12.5\% \text{ of } 200 \text{ cars} =$  \_\_\_\_\_

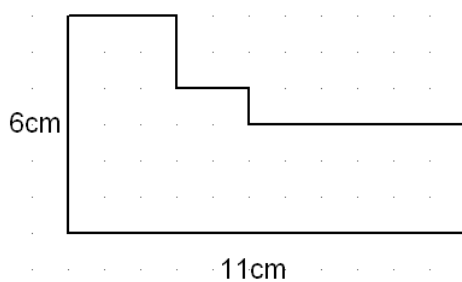
## 1.5 Measurement

### 1.5.1 Level A

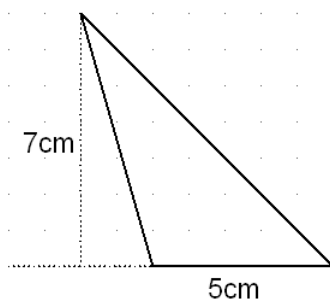
#### Question 13 (1 mark each)

Find the perimeter or areas of the following figures:

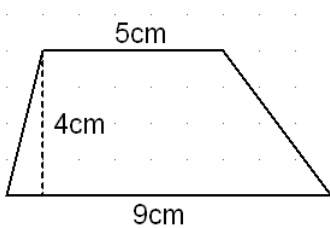
1. Perimeter = \_\_\_\_\_



2. Area = \_\_\_\_\_



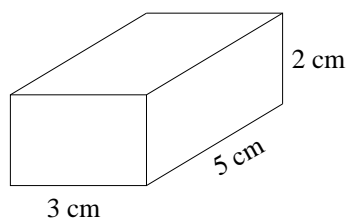
3. Area = \_\_\_\_\_



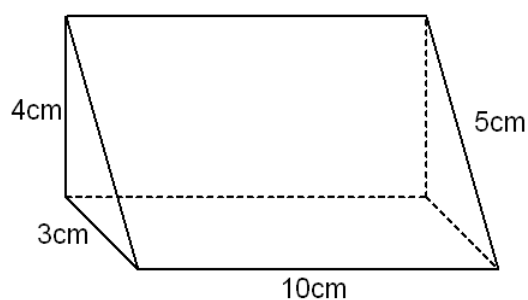
**1.5.2 Level B****Question 14** (1 mark each)

Find the volumes of the following figures shown below:

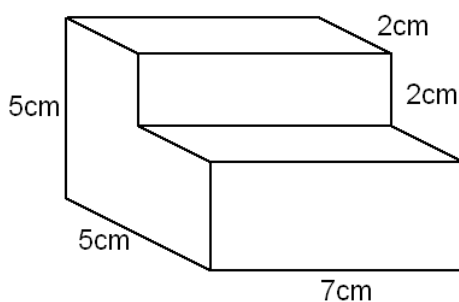
1. Volume = \_\_\_\_\_



2. Volume = \_\_\_\_\_



3. Volume = \_\_\_\_\_



**1.5.3 Level C****Question 15** (1 mark each)

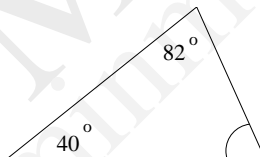
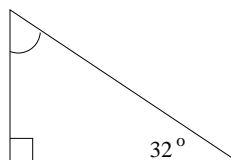
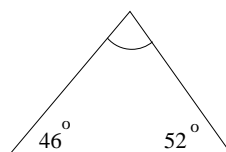
1.  $6700\text{g} = \underline{\hspace{2cm}} \text{kg}$

2.  $4.95\text{L} = \underline{\hspace{2cm}} \text{ml}$

3.  $423\text{mm} = \underline{\hspace{2cm}} \text{km}$

**1.6 Geometry****1.6.1 Level A****Question 16** (1 mark each)

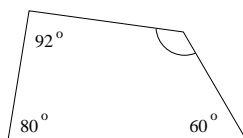
Calculate the size of the unknown angle in the triangles below:

1.  $\underline{\hspace{2cm}}$ 2.  $\underline{\hspace{2cm}}$ 3.  $\underline{\hspace{2cm}}$ 

**1.6.2 Level B****Question 17** (1 mark each)

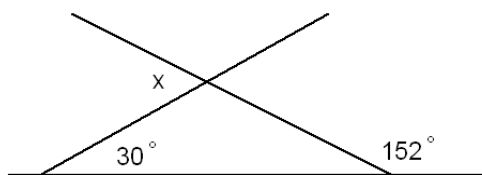
Without using a protractor calculate the size of the unknown angle marked in the quadrilateral below:

\_\_\_\_\_

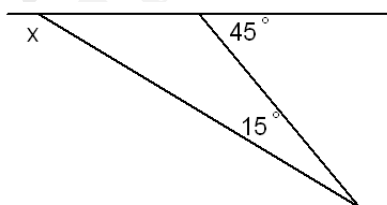
**1.6.3 Level C****Question 18** (1 mark each)

Calculate the unknown angles **X** in the following figures:

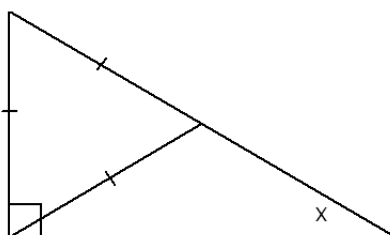
1. \_\_\_\_\_



2. \_\_\_\_\_



3. \_\_\_\_\_



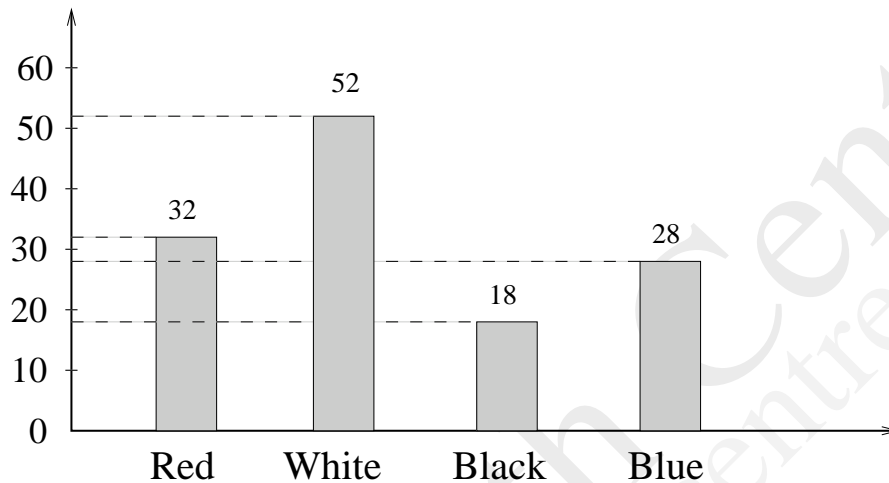


## 1.7 Shares and Graphs

### 1.7.1 Level A

#### Question 19 (2 marks each)

North Ryde public primary school students did a survey of the different colours of cars that passed close to their school. They recorded the information on the column graph below:



1. How many cars were recorded in the survey?

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2. What percentage were white?

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3. What was the difference between the most popular and the least popular?

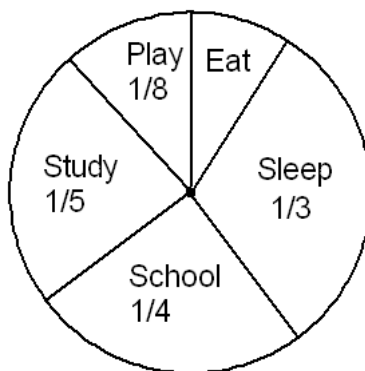
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**1.7.2 Level B****Question 20** (2 marks each)

David made a sector graph to show how he spends his time in one day. Answer the following questions.



1. How many hours does he spend in school?

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2. How many hours does he play?

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3. How many hours does he study?

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4. How many hours does he spend on eating?

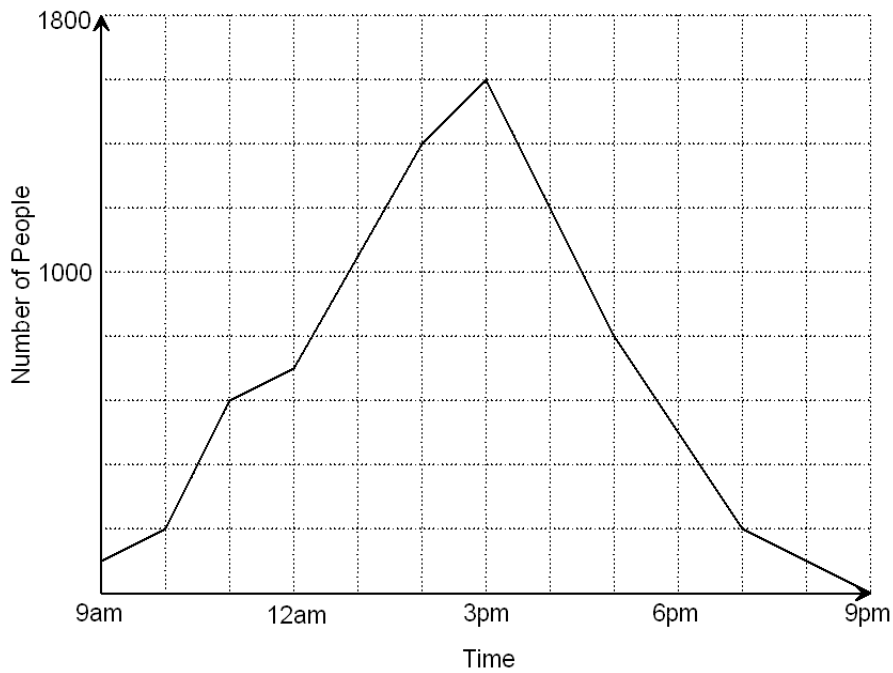
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**1.7.3 Level C****Question 21** (2 marks each)

On Saturday, the number of people at different times at MYER store in the Macquarie Centre are shown in the graph below. Answer the following questions:



1. At what time were the maximum number of people in the store?

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2. When the store opens how many people were in the store?

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3. Find the duration of time when there were more than 1400 people in the store.

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## 1.8 Number Theory

### 1.8.1 Level A

**Question 22** (1 mark each)

State whether the following numbers are prime or composite:

1. 11      ☐ *prime*,      ☐ *composite*
2. 21      ☐ *prime*,      ☐ *composite*
3. 23      ☐ *prime*,      ☐ *composite*

### 1.8.2 Level B

**Question 23** (1 mark each)

Which of the number below is divisible by 9?

1. 2131      ☐
2. 3654      ☐
3. 1926      ☐

### 1.8.3 Level C

**Question 24** (1 mark each)

Think about the rule, and then write the next 3 numbers in the pattern below:

1. 1, 2, 4, 6, 18, 21,      ☐      ☐      ☐
2. 5, 10, 11, 22, 24,      ☐      ☐      ☐
3. 2, 6, 5, 15, 13,      ☐      ☐      ☐

## 1.9 Problem Solving

### 1.9.1 Level A

#### Question 25 (2 marks each)

Mary went to the Sunday market and bought 3 coffee mugs at \$1.75 each, a T-shirt for \$9.75 and 5 second hand books at 45 cents each. How much charge is left over from \$20.00?

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### 1.9.2 Level B

#### Question 26 (2 marks each)

A group of students heights were: Jane 1.05 m, Joe 1.26m, Jenny 0.94m, and Gary 1.15m. What was their average height?

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### 1.9.3 Level C

#### Question 27 (2 marks each)

Fourteen people attended a meeting. If each person shook hands with every other person, How many handshakes were there altogether?

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**1.10 Maths Challenge****1.10.1 Level A****Question 28** (4 marks each)

A natural number  $N$  has a remainder of 3 when divided by 4 and also has a remainder of 4 when divided by 5. What is the smallest value of  $N$  could have?

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**1.10.2 Level B****Question 29** (4 marks each)

The cost of sunglasses and a case together is \$12. If the sunglasses cost \$10.5 more than the case, what is the cost of the sunglasses?

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**1.10.3 Level C****Question 30** (4 marks each)

What is the sum of consecutive even numbers from 1 to 50?

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