DURATION: 90 minutes

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Conquesta 2008

(International Multiple Choice Primary School Olympiads – Est. 1998)
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Mathematics 1 – Grade 7

Welcome to your Conquesta Olympiad. As you read and answer the questions, we hope that you enjoy and learn from the information. Once you have read the information and the questions carefully, you have to make a choice. When you have decided which of the answers is correct, completely fill in the matching square on your answer sheet using a 2B or a B pencil. For example, if the answer to question 4 is c, then neatly fill in the square containing c next to the number 4. See example below. Fill in only one square per question and make sure you completely rub out any mistakes so that the answer is clear.

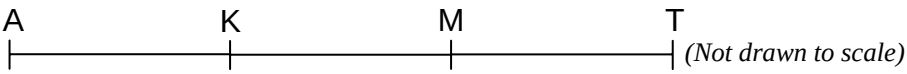
Example:-

4.	a	b	■	d

1. What is the number I'm thinking of?
It is greater than 44 squared and less than 45 squared. 5 Squared is one of its factors and it is a multiple of 13.

(a) 2 020 (b) 1 924

(c) 1 950 (d) 2 015



(Not drawn to scale)

AT is a straight line segment with AM = 75mm; AK = 38mm and AT = 103mm.

Calculate *(DO NOT MEASURE)* the length of…….

2. KM **3.** MT **4.** KT

(a) 28 mm (b) 73 mm (c) 37 mm (d) 65 mm

5. If I walk 7km in $1\frac{3}{4}$ hours, what is my average speed in km/h?

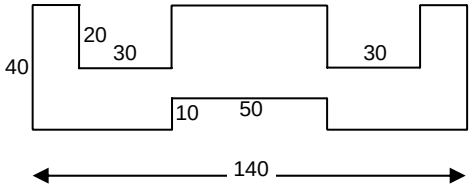
(a) 1 km/h

(b) 4 km/h

(c) 0,15 km/h

(d) 15 km/h

6. Find the area of this shape in square centimetres. *(All dimensions are in millimetres.)*



(a) 39,0 cm^2 (b) 3 900 cm^2

(c) 390 cm^2 (d) 3,90 cm^2

7. The teacher wrote the following expression on the board:-

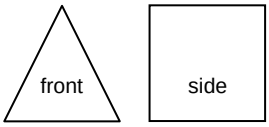
$8 \times 9 - (2+3)^2$

What is the value of this expression?

(a) 36 (b) 62

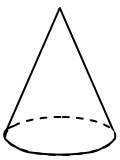
(c) 47 (d) 97

8. The front and side views of a geometric solid are shown on the right:-

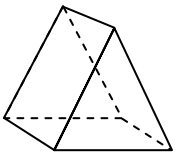


Which geometric solid below, (a) – (d), could these views represent?

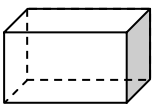
(a)



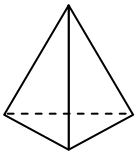
(b)



(c)



(d)



9. Most cars have a mass of more than one metric ton. Which of the equations in (a) – (d) below could be used to convert p, a car's mass in kilograms, into t, its mass in metric tons?

(a) $p + 1\,000 = t$ (b) $1\,000 \square\ p = t$

(c) $\frac{p}{1\,000} = t$ (d) $\frac{1\,000}{p} = t$

10. In a race from point X to point Y and back, Sandy averages 30km per hour to point Y and 10km per hour back to point X. Peter averages 20km per hour in both directions. Between Sandy and Peter, who finished first?

(a) Sandy (b) Peter

(c) They tie (d) neither

Match the area formulas given in (a) – (d) with the descriptions in questions 11 – 13.

11. Circle

12. Triangle

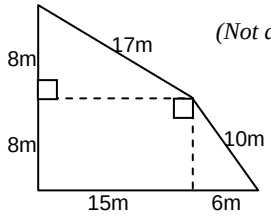
13. Trapezium

$\pi = 3{,}14$
b = breadth
h = height

(a) $\frac{bh}{2}$ (b) $\frac{1}{2}(b_1+b_2)h$

(c) πr^2 (d) $\pi r^2 h$

14. What is the area of this figure?



(Not drawn to scale)

(a) 204 m^2 (b) 210 m^2

(c) 212 m^2 (d) 218 m^2