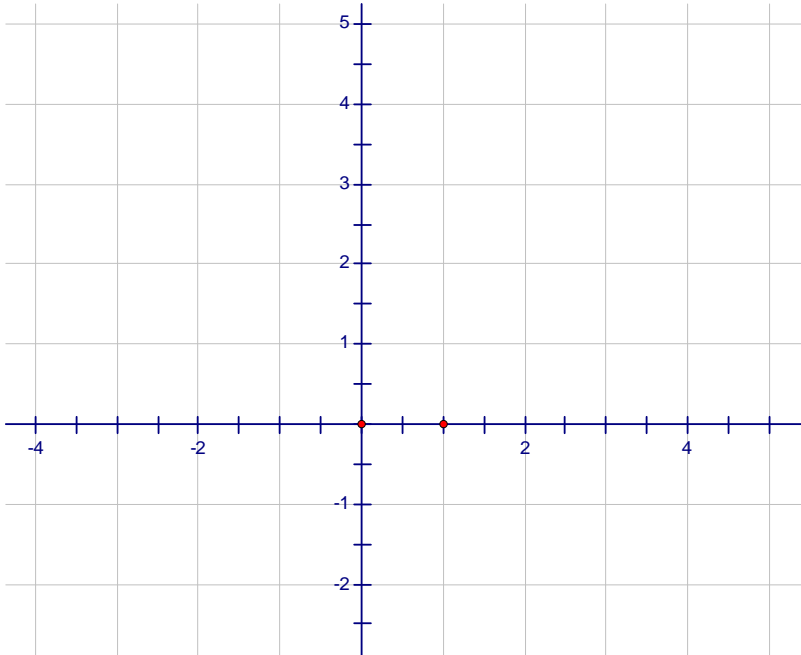


IB MIDDLE YEARS PROGRAM
ENTRANCE EXAM
MATHEMATICS Grade 9

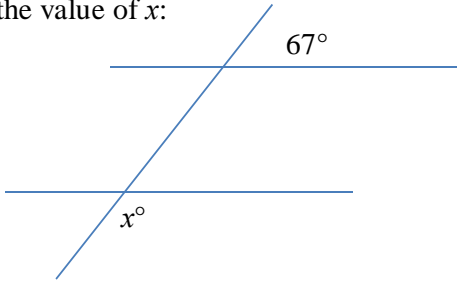
Time: 60 min

NAME: _____

1. 1 mark	Calculate: $(2 - 3)^2 : (4 - 8 + 5) \cdot 2 =$
2. 1 mark	John is driving a bicycle race 250 km long. After driving 34% of the race, find the distance John has passed.
3. 1 mark	Graph the line $y = 2 - \frac{1}{2}x$ in a coordinate system. 

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are whose diagonal is 12 cm.

1pt	
5. 1 mark	Simplify the following expression: $5a - \frac{2}{3}(7a - 4a) - 3a + 7 =$
6. 1 mark	Find the value of x : 
7. 2 marks	Solve equation: $5 - \frac{2x+3}{7} = 4.$

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your answer in the **simplest form**:

2 marks

$$\frac{1}{21} \times \frac{7}{2} + 2 - \frac{8}{11} \div \frac{3}{11} + \frac{1}{2} =$$

9.

Solve the system:
$$\begin{cases} 2x + 3y = -2 \\ 3x + 5y = 4 \end{cases}$$

2 marks

10.

Area of parallelogram ABCD is 32 cm^2 . Height DF of the parallelogram is 4 cm. Given that E is the midpoint of the side DC determine area of the triangle BCE.

2 marks

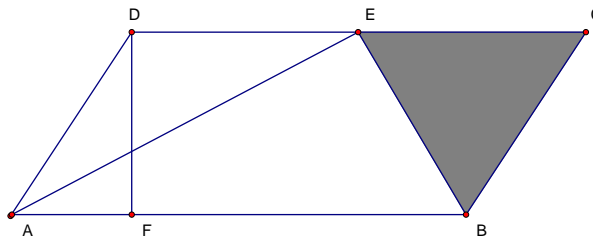


Diagram not to scale

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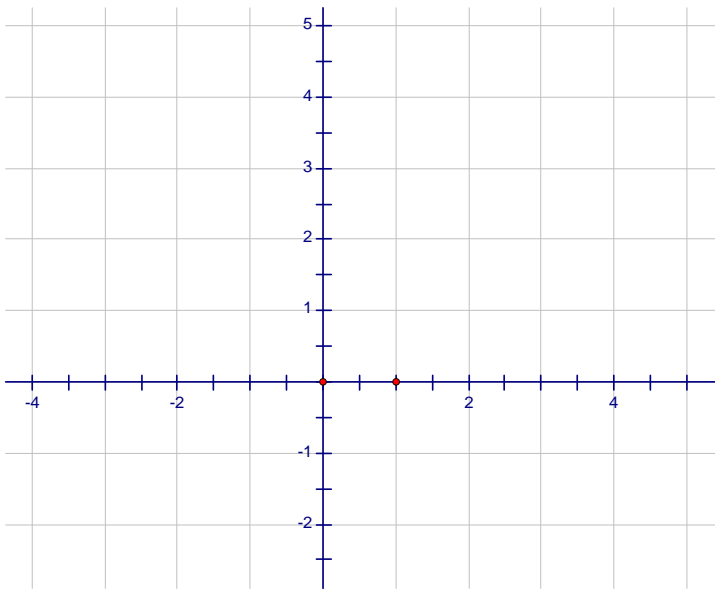
3 marks	a of a prism whose base is isosceles triangle with sides 10 cm, 15 cm and 15 cm and the height of the prism is 6 cm.
12. 3 marks	A man won a lottery and gave all the money to his 2 sons, 3 daughters and his wife. Each son received twice as much as each daughter and his wife received 17500 p, which was a quarter of the money. How much did each son receive?

PRIJEMNI ISPIT – MATEMATIKA

PRVI RAZRED

Trajanje: 60 min

IME I PREZIME: _____

1. 1 bod	Izra unajte: $(2 - 3)^2 : (4 - 8 + 5) \cdot 2 = .$
2. 1 bod	Ivan vozi bicikl na stazi duljine 250 km. Nakon pre enih 34% predvi ene staze odredite koliko je kilometara Ivan pre-ao.
3. 1 bod	U koordinatnom sustavu nacrtajte pravac $y = 2 - \frac{1}{2}x$. 

drata ija dijagonala ima duljinu 12 cm.

1 bod

5.

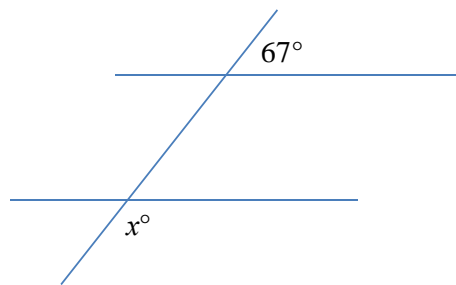
Pojednostavite: $5a - \frac{2}{3}(7a - 4a) - 3a + 7 =$

1 bod

6.

Odredite vrijednost kuta x :

1 boda



7.

Rije-ite jednadfibu: $5 - \frac{2x + 3}{7} = 4.$

2 boda

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odgovor u obliku razlomka:

2 boda

$$\frac{1}{21} \times \frac{1}{2} + 2 - \frac{8}{11} \div \frac{3}{11} + \frac{1}{2} =$$

9.

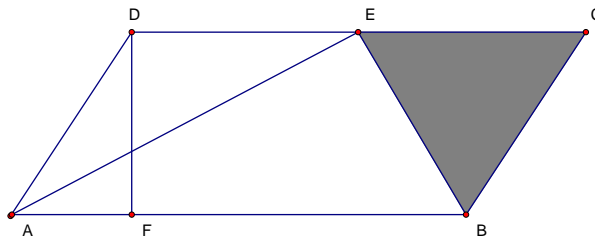
2 boda

Rije-ite sustav:
$$\begin{cases} 2x + 3y = -2 \\ 3x + 5y = 4 \end{cases}$$

10.

2 boda

Povr-ina paralelograma ABCD je 32 cm^2 . Visina paralelograma DF je 4 cm. Ako je to ka E polovi-te stranice DC odredite povr-inu trokuta BCE.



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3 boda	pravne trostrane prizme $\triangle ABC$ je visina duljine 6 cm, a baza jednakostraničan trokut sa stranicama duljina 10 cm, 13 cm i 13 cm.
12. 3 boda	Petar je svoj cjelokupni dobitak na lotu odlučio podijeliti između svoja 2 sina, 3 kćeri i svoje žene. Svaki sin će dobiti dvostruko više od svake kćeri a žena će dobiti 17500 € -to je četvrtina cjelokupnog dobitka. Koliko će dobiti svaki od sinova?