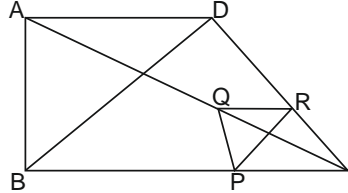


CLASS 10

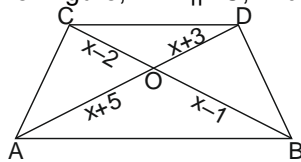
HOLIDAY HOMEWORK

MATHEMATICS

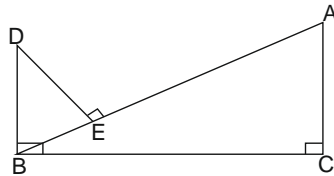
1. In the figure, two triangles ABC and DBC lie on the same side of base BC. P is a point on BC such that $PQ \parallel BA$ and $PR \parallel BD$. Prove that $QR \parallel AD$.



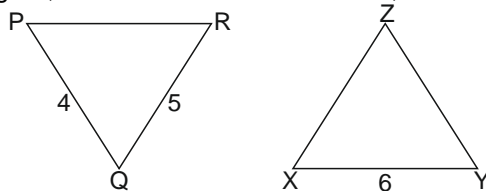
2. In the figure $DE \parallel BC$ of $BD = x - 3$, $AB = 2x$. $CE = x - 2$ and $AC = 2x + 3$. Find x .
3. In the given figure, if $AB \parallel DC$, find the value of x .



4. In the figure, $DB \perp BC$, $DE \perp AB$ and $AC \perp BC$. Prove that $\frac{BE}{DE} = \frac{AC}{BC}$.

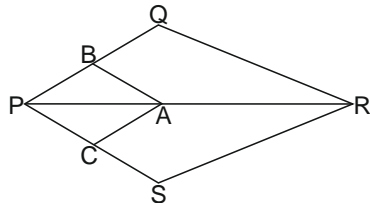


5. In the figure, $\Delta PQR \sim \Delta XYZ$. If $PQ = 4\text{cm}$, $QR = 5\text{cm}$ and $XY = 6\text{cm}$, find YZ .

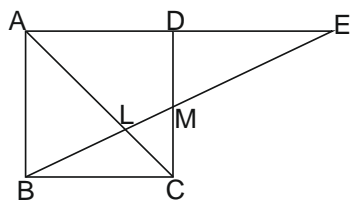


6. In the figure, $BA \parallel QR$, and $CA \parallel SR$.

P.T. $\frac{QB}{BP} = \frac{SC}{CP}$.



7. If one diagonal of a trapezium divides the other diagonal in the ratio 1 : 3. Prove that one of the parallel sides is three times the other.
8. In the given figure, M is the mid-point of side CD of a parallelogram ABCD. The line BM is drawn intersecting AC at L and AD produced at E. Prove that $EL = 2BL$.



ENGLISH

1. Watch the movie on 'The Diary of a Young Girl'. In your notebook, write about your favourite scene. Also write the character sketches of Annie, her mother and father. Paste a few pictures (4-5 pages).

SCIENCE

To be done in respective notebooks for biology, chemistry and physics.

Biology

1. Draw neat and labelled diagrams of:
 - (a) Digestive system
 - (b) Respiratory system
 - (c) Excretory system
 - (d) Heart
2. Draw a table based on the digestive system of humans as shown below.

Organ/Part of the digestive tract	Secretions	Digestive enzymes present	Action of the enzyme
MOUTH	SALIVA	Salivary amylase	Starches salivary amylase sugars

Chemistry

1. A solution of substance X is used for white washing:
 - (a) Name the substance 'X' and write its formula.
 - (b) Write the reaction of the substance 'X' with water to form a product Y.
 - (c) Explain how Y is used for whitewashing with the help of an equation.
2. Why does the colour of copper sulphate solution change when an iron nail is dipped in it?
3. A shiny brown coloured element X on heating in air becomes black in colour. Name the element X and the black coloured compound formed.
4. What can be seen when a strip of copper metal is placed in a solution of silver nitrate?
5. On adding dil. HCl to copper oxide powder the solution becomes blue green. Predict the new compound formed which imparts a blue green colour to the solution.
6. Decomposition reaction require energy in the form of heat, light and electrical energy. Write a reaction where heat, light and electrical energy is required to decompose a compound.

Physics

1. A given length of a wire is doubled on itself and this process is repeated once again. By what factor does the resistance of the wire change?
2. Draw a schematic diagram of an electric circuit comprising of 3 cells and an electric bulb, ammeter, plug key in the ON mode and another with same components but with two bulbs in parallel and a voltmeter across the combination.
3. How much current will an electric bulb draw from 220V source, if the resistance of the bulb is 1200Ω ? If in place of the bulb, a heater of resistance 100Ω is connected to the sources, calculate the current drawn by it.
4. How will you connect three resistors of 9Ω each to get resultant resistance:
 - (a) 13.5Ω
 - (b) 6Ω
5. Explain the role of a fuse in a series with any electrical appliance in an electric circuit. Why should a fuse with defined rating for an electric circuit not be replaced by one with a larger rating?

HINDI

1. 'व्याकरण प्रवेशक' में से पृष्ठ 47-49 पर दिए गए गत वर्षों में आए सी.बी.एस.ई. बोर्ड के 'अपठित काव्यांश' के प्रश्न 1 से 5 तक के उत्तर लिखें।

PUNJABI

1. ਹੇਠਾਂ ਲਿਖੇ ਵਿਸ਼ਿਆਂ ਤੇ 250 ਸ਼ਬਦਾਂ ਦੀ ਲੇਖ ਰਚਨਾ ਕਰੋ। ਵਿਸ਼ਿਆਂ ਨੂੰ ਵੱਧ ਤੋਂ ਵੱਧ ਮੁਹਾਵਰੇ, ਅਖਾਣਾਂ ਅਤੇ ਤੁਕਾਂ ਦੀ ਵਰਤੋਂ ਨਾਲ ਸ਼ਿੰਗਾਰਿਆ ਜਾਵੇ।
 - ਨਾਨਕ ਦੁਖੀਆ ਸਭ ਸੰਸਾਰ
 - ਮਿਠਤੁ ਨੀਵੀਂ ਨਾਨਕਾ ਗੁਣ ਚੰਗਿਆਈਆਂ ਤੱਤ
 - ਮਨ ਜੀਤੈ ਜਗੁ ਜੀਤੁ
 - ਵਾਦੜੀਆਂ-ਸਜਾਦੜੀਆਂ ਨਿਭਣ ਸਿਰਾਂ ਦੇ ਨਾਲ
 - ਇੱਕ ਚੁੱਪ ਸੌ ਸੁੱਖ

SOCIAL SCIENCE

1. Visit a Bank and write about the various activities conducted by the bank. Also explain the various types of banks and their importance in the economy of the nation (5 pages with pictures).

HEALTH AND PHYSICAL EDUCATION

1. Prepare First Aid Kit.