

① Solve the following

$$\left[\left(625 \right)^{\frac{1}{2}} \right]^{\frac{1}{7}}^2$$

② If $a = 5 + 2\sqrt{6}$ and $b = \frac{1}{a}$, find $a^2 + b^2$

③ Represent $5.2\bar{4}$ on Number line, up to 4 decimal places.

④ Represent $\sqrt{13} + 2$ on the number line

⑤ For what value of k , $P(x) = x^3 - 2kx^2 + 16$ is divisible by $x+2$

⑥ Factorise: $x^3 - 6x^2 + 32x + 10$

⑨

⑥ $8x^3 + 343y^3$

⑦ If $x+y+z=11$ and $xy+yz+zx=36$, find $x^2+y^2+z^2$.

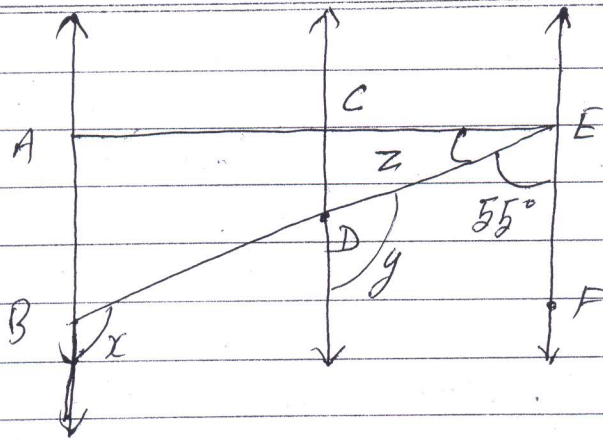
⑧ Expand: $(-2x+5y+z)^2$

⑨ Prove that, the sum of the angles of a triangle is 180° .

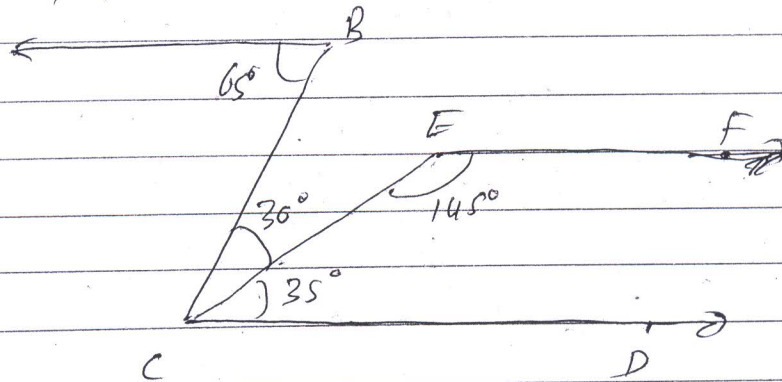
⑩ Prove that, if a transversal intersects two lines such that a pair of alternate ^{interior} angles is equal, then the two lines are parallel.

⑪ In fig. $AB \parallel CD$ and $CD \parallel EF$. Also $EA \perp AB$. If $\angle BEF = 55^\circ$ find the value of x , y , and z .

(11) fig.



12. In figure, prove that $AB \parallel EF$



(13) Two parallel sides of a trapezium are 60 cm and 77 cm. and other two sides are 25 cm and 26 cm. find the area of trapezium.

(14) find the area of quadrilateral ABCD whose sides are 9 cm, 40 cm, 28 cm, and 15 cm. respectively and angle between first two sides is a right angle.

(15) If $P = 2 - a$, prove that $a^3 + 6ap + b^3 - 8 = 0$

(16) The sides of a triangle in the ratio 12:17:25 and its perimeter is 1080 cm. find its area

~~1. If $(3, 2)$ is the solution~~

Creative work (A) write the algebraic identities on A-3 paper sheet

(B) The length and breadth of a rectangle are 20 cm and 15 cm. find its area by using the formula of area of rectangle = $l \times b$, also verify it by using Heron's formula

(C) write the statements of all theorems and 6 axioms of (lines and angles) U-6