

(1) Factorise: (i) $28 - 31x - 5x^2$

(ii) $y^2 - 6y - 135$

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(2) A jeweller allows a discount of 16% to his customers and still gains 20%. Find the marked price of a ring which costs a jeweller Rs 119000.

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(3) How many cubic metres of earth must be dug out to sink a well which is 20 m deep and has a diameter of 7 metres? If the earth so dug out is spread over a rectangular plot 28 m by 11 m, what is the height of the platform so formed?

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(4) Find the number of sides of a regular polygon whose each interior angle measures 150° . If possible also find the number of diagonals of it.

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