Example 11: In Fig. 9.10, ABCD is a parallelogram, in which AB = 8 cm, AD = 6 cm and altitude AE = 4 cm. Find the altitude corresponding to side AD.

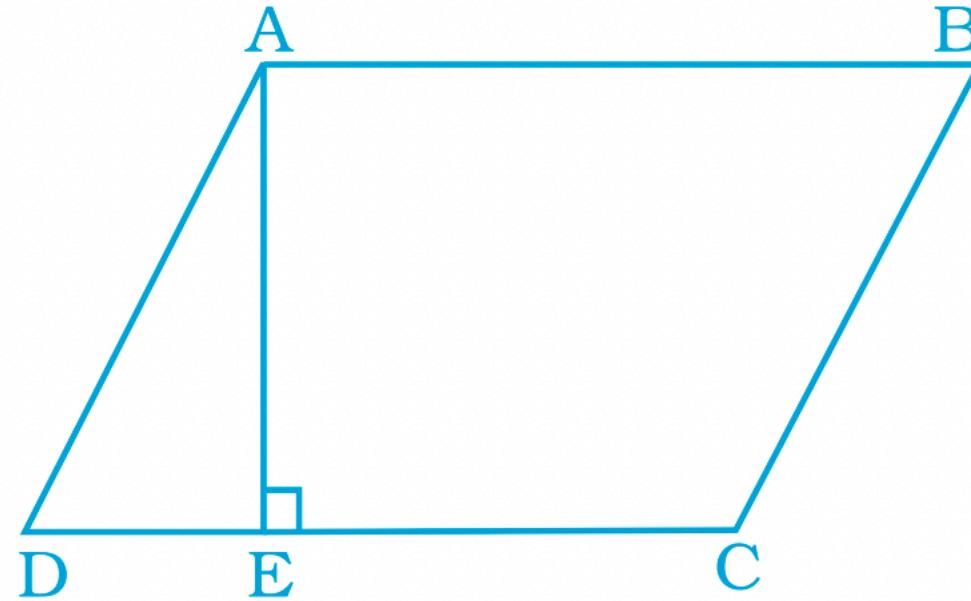*Fig. 9.10*

13. In reference to a circle the value of π is equal to

(a) $\dfrac{\text{area}}{\text{circumference}}$
(b) $\dfrac{\text{area}}{\text{diameter}}$

(c) $\dfrac{\text{circumference}}{\text{diameter}}$
(d) $\dfrac{\text{circumference}}{\text{radius}}$

14. Circumference of a circle is always

(a) more than three times of its diameter

(b) three times of its diameter

(c) less than three times of its diameter

(d) three times of its radius

16. In Fig. 9.21, if PR = 12 cm, QR = 6 cm and PL = 8 cm, then QM is
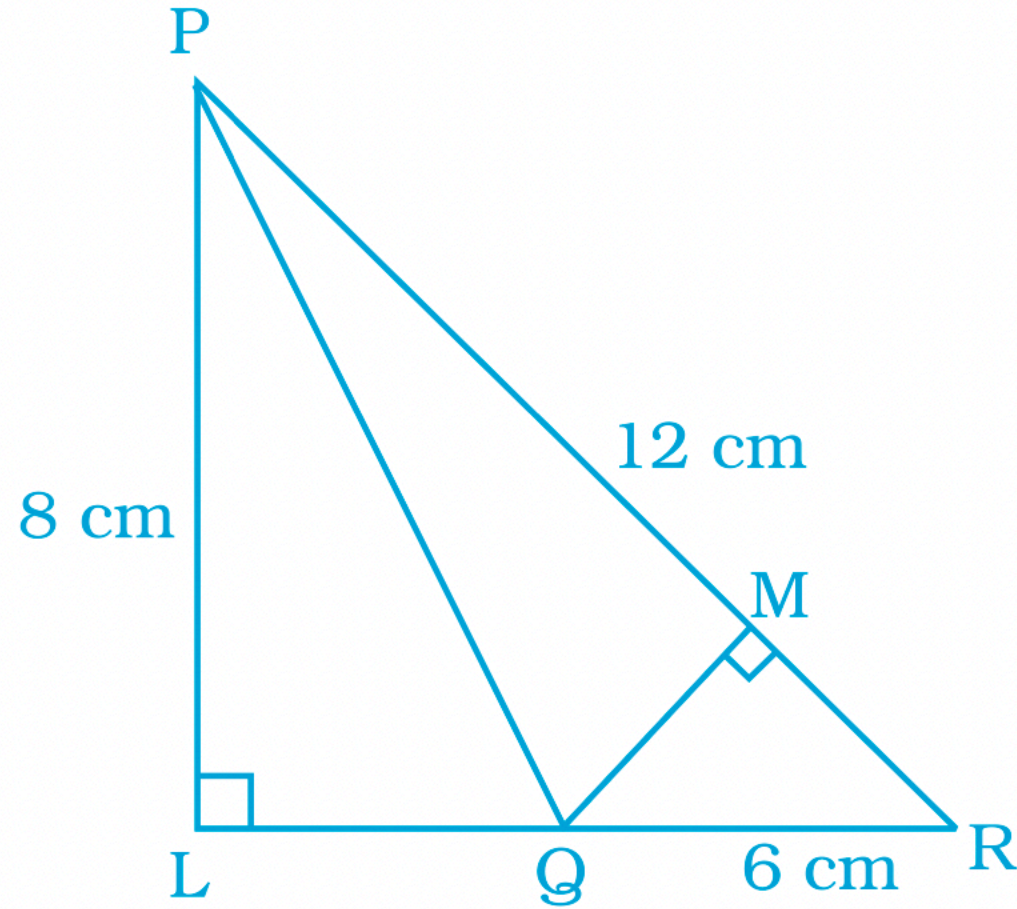

Fig. 9.21

(a) 6 cm   (b) 9 cm   (c) 4 cm   (d) 2 cm

58. Subtract

(g) $x^3y^2 + 3x^2y^2 - 7xy^3$ from $x^4 + y^4 + 3x^2y^2 - xy^3$.

(h) $2(ab + bc + ca)$ from $-ab - bc - ca$.

76. Express the following in exponential form :

(a) $3 \times 3 \times 3 \times a \times a \times a \times a$

(b) $a \times a \times b \times b \times b \times c \times c \times c \times c$

96. A googol is the number 1 followed by 100 zeroes.

  (a) How is a googol written as a power?

  (b) How is a googol times a googol written as a power?

84. Simplify and express each of the following in exponential form:

(e) $\left[\left(\dfrac{3}{5}\right)^3 \times \left(\dfrac{3}{5}\right)^8\right] \div \left[\left(\dfrac{3}{5}\right)^2 \times \left(\dfrac{3}{5}\right)^4\right]$ (f) $(5^{15} \div 5^{10}) \times 5^5$

72. What is the cost of 27.5 m of cloth at ₹ 53.50 per metre?