Dividing Points Practice Problems (with answers)

■ A. Given points $A(-2, 3)$, $B(5, 9)$, find the following

[1] The number p such that point $P(x, y)$ that divides AB internally in the ratio $3 : 4$. ANS: $P(1, \frac{39}{7})$

[2] The number p such that point $P(x, y)$ that divides AB externally in the ratio $3 : 4$. ANS: $P(-23, -15)$

[3] The number p such that point $P(x, y)$ that divides AB internally in the ratio $2 : 5$. ANS: $P(0, \frac{33}{7})$

[4] The number p such that point $P(x, y)$ that divides AB externally in the ratio $2 : 5$. ANS: $P(\frac{-20}{3}, -1)$