

Q.1. Use deductive reasoning (and distributive property) to prove  $(a - b)^2 = a^2 + b^2 - 2ab$ .

Q.2. Use deductive reasoning (and distributive property) to prove that the product of an even integer and odd integer is always an even integer.

Q.3. Use deductive reasoning (and distributive property) to prove that the square of an odd integer is always an odd integer.

Q.4. Use deductive reasoning to prove to prove that the sum of any five consecutive integers is 5 times the median.

Q.5. Use deductive reasoning to prove to prove that the sum of any seven consecutive integers is seven times the median.

Q.6. Give an example of deductive reasoning from real life.