C++ code 2.14.19: Sub-problem (2-14.r): `GradientsReferenceShapeFunctions()` for CRReferenceFiniteElement ⇢ GitLab

```cpp
Eigen::Matrix<double, Eigen::Dynamic, Eigen::Dynamic>
CRReferenceFiniteElement::GradientsReferenceShapeFunctions(
    const Eigen::MatrixXd &refcoords) const {
  // Data
  const auto num_points =
      static_cast<lf::assemble::size_type>(refcoords.cols());
  // Initialize a matrix that will store the gradients of the reference basis
  // functions evaluated at the coordinates passed as arguments
  Eigen::MatrixXd grad_ref_shape_functions(3, 2 * num_points);
// TODO: task 2-14.r)
  // Evaluate the gradients
  grad_ref_shape_functions.row(0) = (Eigen::Vector2d() << 0, -2)
                                        .finished()
                                        .transpose()
                                        .replicate(1, num_points);
  grad_ref_shape_functions.row(1) =
      2. * Eigen::VectorXd::Ones(2 * num_points).transpose();
  grad_ref_shape_functions.row(2) = (Eigen::Vector2d() << -2, 0)
                                        .finished()
                                        .transpose()
                                        .replicate(1, num_points);
  return grad_ref_shape_functions;
}
```