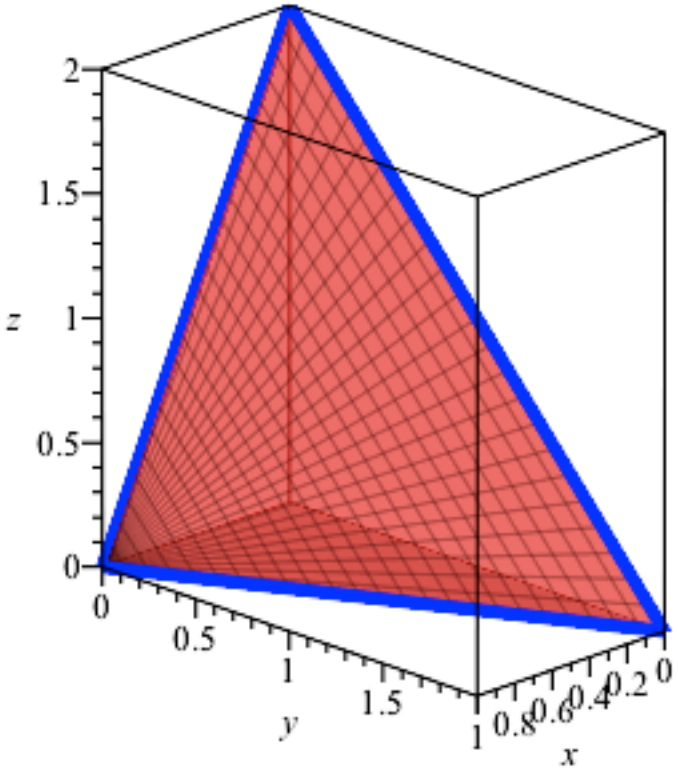
```
> with(plots):
  with(Student[VectorCalculus]):
> S := plot3d(2 - 2·x - y, x = 0..1, y = 0..2 - 2·x, color = "Red", transparency = 0.5):
> Cxy := SpaceCurve(⟨t, 2 - 2·t, 0⟩, t = 0..1, color = "Blue", thickness = 5):
> Cyz := SpaceCurve(⟨0, t, 2 - t⟩, t = 0..2, color = "Blue", thickness = 5):
> Cxz := SpaceCurve(⟨t, 0, 2 - 2· t⟩, t = 0..1, color = "Blue", thickness = 5):
> R := plot3d([x, y, 0], x = 0..1, y = 0..2 - 2 ·x, color = "Grey", style = patchnogrid):
> display(S, Cxy, Cyz, Cxz, R, scaling = constrained, axes = boxed, labels = [x, y, z], orientation
      = [45, 70]);
```



Graph of the curve represented parametrically by the components of the given vector.

```
> F := (x, y, z) → VectorField(⟨y^2, y·z, x·z⟩):
> curlF := (x, y, z) → Curl(F(x, y, z)):
> simplify(SurfaceInt(curlF(x, y, 2 - 2·x - y).⟨2/sqrt(6), 1/sqrt(6), 1/sqrt(6)⟩, [x, y, z]
      = Surface(⟨x, y, 2 - 2 ·x - y⟩, x = 0..1, y = 0..2 - 2·x), output = integral));
  SurfaceInt(curlF(x, y, 2 - 2·x - y).⟨2/sqrt(6), 1/sqrt(6), 1/sqrt(6)⟩, [x, y, z] = Surface(⟨x, y,
```

$$2 - 2\cdot x - y\rangle, x = 0..1, y = 0..2 - 2\cdot x)\Big);$$

$$-\left(\int_0^1 \int_0^{2-2x} (-2x + 2 + 3y)\, dy\, dx\right)$$

$$-\frac{10}{3} \quad \textbf{(1)}$$

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