In[1]:=
```
sol = Reduce[{4 * x1 + 7 * x2 + 6 * x3 == 186,
   Floor[(1/2) * x1] + Floor[(1/5) * x2] + Floor[(1/3) * x3] == 18,
   Floor[(1/5) * x1] + Floor[(1/2) * x2] + Floor[(1/4) * x3] == 21}, {x1, x2, x3}, Reals]
```

Out[1]=

$$\left(\left(\frac{155}{2} < x1 < 78 \&\& \frac{1}{7}\left(744 - 4\,x1\right) < x2 < 62\right) || \left(72 \le x1 \le 73 \&\& \frac{1}{7}\left(714 - 4\,x1\right) < x2 < 62\right) ||\right.$$
$$\left(73 < x1 \le \frac{147}{2} \&\& \frac{1}{7}\left(714 - 4\,x1\right) < x2 \le \frac{1}{7}\left(726 - 4\,x1\right)\right) ||$$
$$\left(\frac{147}{2} < x1 < 74 \&\& 60 \le x2 \le \frac{1}{7}\left(726 - 4\,x1\right)\right) || \left(74 \le x1 < 75 \&\& \frac{1}{7}\left(726 - 4\,x1\right) < x2 < 62\right) ||$$
$$\left(\frac{153}{2} < x1 < 78 \&\& \frac{1}{7}\left(726 - 4\,x1\right) < x2 < 60\right) || \left(x1 == 72 \&\& 58 \le x2 < 60\right) ||$$
$$\left(72 < x1 < 74 \&\& 58 \le x2 \le \frac{1}{7}\left(708 - 4\,x1\right)\right) || \left(75 \le x1 < 76 \&\& \frac{1}{7}\left(714 - 4\,x1\right) < x2 < 60\right) ||$$
$$\left(x1 == 74 \&\& \frac{442}{7} < x2 < 64\right) || \left(74 < x1 < 75 \&\& \frac{1}{7}\left(738 - 4\,x1\right) < x2 \le \frac{1}{7}\left(744 - 4\,x1\right)\right) ||$$
$$\left(74 \le x1 < 75 \&\& \frac{1}{7}\left(708 - 4\,x1\right) < x2 \le \frac{1}{7}\left(714 - 4\,x1\right)\right) ||$$
$$\left(\frac{151}{2} < x1 < 76 \&\& \frac{1}{7}\left(708 - 4\,x1\right) < x2 < 58\right) || \left(\frac{157}{2} < x1 < 80 \&\& \frac{1}{7}\left(762 - 4\,x1\right) < x2 < 64\right) ||$$
$$\left(68 \le x1 < \frac{137}{2} \&\& 56 \le x2 \le \frac{1}{7}\left(666 - 4\,x1\right)\right) || \left(x1 == \frac{137}{2} \&\& x2 == 56\right) ||$$
$$\left(x1 == 70 \&\& 56 < x2 < 58\right) || \left(70 < x1 \le 71 \&\& 56 \le x2 < 58\right) ||$$
$$\left(71 < x1 < 72 \&\& 56 \le x2 \le \frac{1}{7}\left(690 - 4\,x1\right)\right) || \left(70 \le x1 \le \frac{281}{4} \&\& 54 \le x2 < 55\right) ||$$
$$\left.\left(\frac{281}{4} < x1 < 72 \&\& 54 \le x2 \le \frac{1}{7}\left(666 - 4\,x1\right)\right)\right) \&\& x3 == \frac{1}{6}\left(186 - 4\,x1 - 7\,x2\right)$$

In[2]:=
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RegionPlot3D[ImplicitRegion[sol, {x1, x2, x3}]]
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Out[2]=