## Teach Me How To Factor (WSHS Math Rap Song) Practice Problems

Problems are aligned with the video found at http://mathfour.com/wshs-mathrap-factor. Each problem set notes the time in the video of the example that corresponds to that problem set.

Factor these into three pieces. (time: 0:18-0:56)

1. $-75 \mathrm{x}+3 \mathrm{x}^{3}$
2. $-72 x+8 x^{3}$
3. $-36 x+9 x^{3}$
4. $-64 \mathrm{x}+\mathrm{x}^{3}$
5. $-196 x+4 x^{3}$
6. $-108 x+3 x^{3}$
7. $-320 x+5 x^{3}$
8. $-16 x+x^{3}$
9. $-50 \mathrm{x}+2 \mathrm{x}^{3}$
10. $-6 x+6 x^{3}$

Factor each into two pieces. (time: 1:24-1:52)

1. $x^{2}-8 x+7$ and $x^{2}+8 x+7$
2. $x^{2}-9 x+14$ and $x^{2}+9 x+14$
3. $x^{2}-16 x+63$ and $x^{2}+16 x+63$
4. $x^{2}-11 x+30$ and $x^{2}+11 x+30$
5. $x^{2}-18 x+81$ and $x^{2}+18 x+81$
6. $x^{2}-11 x+30$ and $x^{2}+11 x+30$

Factor these into two pieces. (time: 2:24-2:49)

1. $x^{2}-5 x-24$ and $x^{2}+5 x-24$
2. $\mathrm{x}^{2}-7 \mathrm{x}-18$ and $\mathrm{x}^{2}+7 \mathrm{x}-18$
3. $x^{2}-5 x-36$ and $x^{2}+5 x-36$
4. $x^{2}-2 x-48$ and $x^{2}+2 x-48$
5. $\mathrm{x}^{2}-\mathrm{x}-12$ and $\mathrm{x}^{2}+\mathrm{x}-12$
6. $x^{2}-2 x-48$ and $x^{2}+2 x-48$
7. $x^{2}-4 x-5$ and $x^{2}+4 x-5$
8. $x^{2}-4 x-45$ and $x^{2}+4 x-45$
9. $x^{2}-3 x-18$ and $x^{2}+3 x-18$
10. $x^{2}-8 x-9$ and $x^{2}+8 x-9$
