

Algebra II

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2)	$\frac{1}{3}$	18	$-\frac{64}{9}$
4)	32	20	$12-3t^2$
6)	$\frac{1}{2}$	22	$-n^2+2$
8)	-2	24	$3r^3+r+1$
10)	$-\frac{2}{3}$	26	3, 0, 0
12)	$\frac{4}{5}$	28	$\frac{7}{6}, -\frac{8}{3}, 0$
14)	1	29	$6 \div 3 \neq 3 \div 6$
16)	-270	30	$8 \div (4 \div 2) = (8 \div 4) \div 2$

Many possible answers

$$6) -\frac{1}{2} \div \frac{1}{4} \div (-4)$$

$$-\frac{1}{2} \left(\frac{4}{1} \right) \left(\frac{1}{4} \right)$$

$$\frac{1}{2}$$

$$18) \frac{\left[\frac{4}{9} - \left(-\frac{2}{9} \right) \right] \left[\frac{2}{3} - \left(-\frac{2}{3} \right) \right]^2}{\frac{\left[\frac{2}{3} \right] \left[\frac{16}{9} \right]}{\left(-\frac{1}{8} \right)}} = \frac{\frac{5}{9} \cdot \left(-\frac{10}{3} \right)}{\frac{5}{9} \cdot \left(-\frac{1}{20} \right)}$$

$$= \frac{\frac{32}{27}}{-\frac{1}{8}} = \frac{32}{27} \cdot \left(-\frac{8}{1} \right) = \boxed{-\frac{64}{9}}$$

$$16) \frac{-12 \left(-\frac{3}{4} - \frac{1}{2} \right)}{\frac{5}{9} \div (-10)} = \frac{9+6}{\frac{5}{9} \cdot \left(-\frac{10}{1} \right)}$$

$$\frac{15}{-\frac{10}{9}} = 15 \left(-\frac{18}{10} \right) = \boxed{-270}$$

$$24) \frac{-15r^3 - 5r - 5}{-5} = 3r^3 + r + 1$$

$$28) \frac{(r-3)r(r+3)}{(r-2)(r+2)} = \frac{\left(\frac{1}{2} - 3 \right) \left(\frac{1}{2} \right) \left(\frac{1}{2} + 3 \right) \frac{1}{2}}{\left(\frac{1}{2} - 2 \right) \left(\frac{1}{2} + 2 \right)}$$

$$\frac{\left(+\frac{5}{2} \right) \left(\frac{1}{2} \right) \left(\frac{7}{2} \right)}{\left(+\frac{3}{2} \right) \left(\frac{5}{2} \right)} = \frac{\frac{7}{4}}{\frac{3}{2}} = \frac{7}{4} \cdot \frac{2}{3} = \boxed{\frac{7}{6}}$$

$$\frac{(-1-3)(-1)(-1+3)}{(-1-2)(-1+2)} = \frac{+4(-1)(2)}{(-3)(1)} = -\frac{8}{3}$$