math Antics Worksheets

Name:

Date:

Simplifying Fractions

SIM 1

Instructions: Simplify these fractions using the procedure you learned in the video. Cancel common factors and remultiply any remaining factors to get your final answer.

1. $\frac{12}{14} = \frac{2 \times 2 \times 3}{2 \times 7} = \frac{6}{7}$
2. $\frac{5}{10} = \frac{5 \times 1}{5 \times 2} = \frac{1}{2}$
3. $\frac{6}{9} = \frac{3 \times 2}{3 \times 3} = \frac{2}{3}$
4. $\frac{9}{12} = \frac{3 \times 3}{2 \times 2 \times 3} = \frac{3}{4}$
5. $\frac{7}{21} = \frac{1 \times 7}{3 \times 7} = \frac{1}{3}$
6. $\frac{14}{16} = \frac{2 \times 7}{2 \times 2 \times 2 \times 2} = \frac{7}{8}$
7. $\frac{7}{14} = \frac{1 \times 7}{2 \times 7} = \frac{1}{2}$
8. $\frac{15}{40} = \frac{3 \times 5}{2 \times 2 \times 2 \times 5} = \frac{3}{8}$
9. $\frac{5}{20} = \frac{1 \times 5}{2 \times 2 \times 5} = \frac{1}{4}$
10. $\frac{22}{44} = \frac{2 \times 11}{2 \times 2 \times 11} = \frac{1}{2}$
11. $\frac{8}{12} = \frac{2 \times 2 \times 2}{2 \times 2 \times 3} = \frac{2}{3}$
12. $\frac{20}{24} = \frac{2 \times 2 \times 5}{2 \times 2 \times 2 \times 3} = \frac{5}{6}$
13. $\frac{10}{15} = \frac{2 \times 5}{3 \times 5} = \frac{2}{3}$
14. $\frac{25}{30} = \frac{5 \times 5}{5 \times 2 \times 3} = \frac{5}{6}$
15. $\frac{18}{24} = \frac{2 \times 3 \times 3}{2 \times 2 \times 2 \times 3} = \frac{3}{4}$
16. $\frac{16}{36} = \frac{2 \times 2 \times 2 \times 2}{2 \times 3 \times 2 \times 3} = \frac{4}{9}$
17. $\frac{10}{25} = \frac{2 \times 5}{5 \times 5} = \frac{2}{5}$
18. $\frac{35}{50} = \frac{5 \times 7}{2 \times 5 \times 5} = \frac{7}{10}$

math Antics Worksheets

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Simplifying Fractions - Set 2

SIM 2

Instructions: Simplify these fractions using the procedure you learned in the video. Cancel any common factors and remultiply remaining factors to get your final answer.

1. $\frac{15}{20} = \frac{3 \times 5}{2 \times 2 \times 5} = \frac{3}{4}$
2. $\frac{16}{30} = \frac{2 \times 2 \times 2 \times 2}{2 \times 3 \times 5} = \frac{8}{15}$
3. $\frac{12}{18} = \frac{2 \times 2 \times 3}{2 \times 3 \times 3} = \frac{2}{3}$
4. $\frac{15}{45} = \frac{3 \times 5}{3 \times 3 \times 5} = \frac{1}{3}$
5. $\frac{20}{25} = \frac{2 \times 2 \times 5}{5 \times 5} = \frac{4}{5}$
6. $\frac{27}{39} = \frac{3 \times 3 \times 3}{3 \times 13} = \frac{9}{13}$
7. $\frac{14}{21} = \frac{2 \times 7}{3 \times 7} = \frac{2}{3}$
8. $\frac{48}{72} = \frac{2 \times 2 \times 2 \times 2 \times 3}{2 \times 2 \times 2 \times 3 \times 3} = \frac{2}{3}$
9. $\frac{20}{32} = \frac{2 \times 2 \times 5}{2 \times 2 \times 2 \times 2 \times 2} = \frac{5}{8}$
10. $\frac{32}{40} = \frac{2 \times 2 \times 2 \times 2 \times 2}{2 \times 2 \times 2 \times 5} = \frac{4}{5}$
11. $\frac{18}{36} = \frac{2 \times 3 \times 3}{2 \times 3 \times 2 \times 3} = \frac{1}{2}$
12. $\frac{45}{125} = \frac{3 \times 3 \times 5}{5 \times 5 \times 5} = \frac{9}{25}$
13. $\frac{42}{63} = \frac{2 \times 3 \times 7}{3 \times 3 \times 7} = \frac{2}{3}$
14. $\frac{63}{105} = \frac{3 \times 3 \times 7}{5 \times 3 \times 7} = \frac{3}{5}$
15. $\frac{60}{75} = \frac{2 \times 3 \times 2 \times 5}{3 \times 5 \times 5} = \frac{4}{5}$
16. $\frac{42}{140} = \frac{2 \times 3 \times 7}{2 \times 2 \times 5 \times 7} = \frac{3}{10}$
17. $\frac{36}{84} = \frac{2 \times 2 \times 3 \times 3}{2 \times 2 \times 3 \times 7} = \frac{3}{7}$
18. $\frac{33}{121} = \frac{3 \times 11}{11 \times 11} = \frac{3}{11}$

math Antics Worksheets

Name:

Date:

Simpler Simplifying

SIM 3

Instructions: Simplify these fractions using the procedure you learned in the video. Look for **composite** common factors like 4, 6, 8 or 10 that will save you some steps.

1. $\frac{10}{20} = \frac{1 \times 10}{2 \times 10} = \frac{1}{2}$
2. $\frac{12}{16} = \frac{3 \times 4}{4 \times 4} = \frac{3}{4}$
3. $\frac{6}{12} = \frac{6 \times 1}{6 \times 2} = \frac{1}{2}$
4. $\frac{10}{60} = \frac{1 \times 10}{6 \times 10} = \frac{1}{6}$
5. $\frac{30}{40} = \frac{3 \times 10}{4 \times 10} = \frac{3}{4}$
6. $\frac{24}{40} = \frac{3 \times 8}{5 \times 8} = \frac{3}{5}$
7. $\frac{16}{20} = \frac{4 \times 4}{5 \times 4} = \frac{4}{5}$
8. $\frac{32}{56} = \frac{4 \times 8}{7 \times 8} = \frac{4}{7}$
9. $\frac{8}{12} = \frac{2 \times 4}{3 \times 4} = \frac{2}{3}$
10. $\frac{30}{80} = \frac{3 \times 10}{8 \times 10} = \frac{3}{8}$
11. $\frac{40}{64} = \frac{5 \times 8}{8 \times 8} = \frac{5}{8}$
12. $\frac{18}{30} = \frac{3 \times 6}{5 \times 6} = \frac{3}{5}$
13. $\frac{60}{70} = \frac{6 \times 10}{7 \times 10} = \frac{6}{7}$
14. $\frac{24}{36} = \frac{2 \times 2 \times 6}{2 \times 3 \times 6} = \frac{2}{3}$
15. $\frac{30}{36} = \frac{5 \times 6}{6 \times 6} = \frac{5}{6}$
16. $\frac{40}{60} = \frac{2 \times 2 \times 10}{2 \times 3 \times 10} = \frac{2}{3}$
17. $\frac{18}{24} = \frac{3 \times 6}{4 \times 6} = \frac{3}{4}$
18. $\frac{64}{72} = \frac{8 \times 8}{9 \times 8} = \frac{8}{9}$

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Could it be Simpler?

SIM 4

Instructions: Tell whether the fraction could be simplified. Check '**yes**' if you think it could be simplified. Check '**no**' if you think the fraction is already as simple as it can be.

Examples

$\frac{1}{2}$ ☐ yes ☒ no — already as simple as it can be

$\frac{2}{4}$ ☒ yes ☐ no — this can be simplified

1	$\frac{2}{3}$	☐ yes ☒ no	2	$\frac{8}{20}$	☒ yes ☐ no	3	$\frac{5}{10}$	☒ yes ☐ no
4	$\frac{3}{4}$	☐ yes ☒ no	5	$\frac{5}{25}$	☒ yes ☐ no	6	$\frac{7}{9}$	☐ yes ☒ no
7	$\frac{14}{44}$	☒ yes ☐ no	8	$\frac{15}{21}$	☒ yes ☐ no	9	$\frac{1}{16}$	☐ yes ☒ no
10	$\frac{6}{7}$	☐ yes ☒ no	11	$\frac{33}{44}$	☒ yes ☐ no	12	$\frac{6}{15}$	☒ yes ☐ no
13	$\frac{9}{27}$	☒ yes ☐ no	14	$\frac{11}{13}$	☐ yes ☒ no	15	$\frac{3}{8}$	☐ yes ☒ no
16	$\frac{4}{18}$	☒ yes ☐ no	17	$\frac{9}{16}$	☐ yes ☒ no	18	$\frac{8}{64}$	☒ yes ☐ no
19	$\frac{7}{15}$	☐ yes ☒ no	20	$\frac{23}{55}$	☐ yes ☒ no	21	$\frac{3}{30}$	☒ yes ☐ no
22	$\frac{12}{44}$	☒ yes ☐ no	23	$\frac{9}{81}$	☒ yes ☐ no	24	$\frac{13}{26}$	☒ yes ☐ no