

Fraction Simplification Practice

Name: _____

Date: _____

Question 1

Simplify the following fractions

I. $\frac{3}{9}$

II. $\frac{16}{8}$

III. $\frac{20}{25}$

IV. $\frac{81}{135}$

V. $\frac{-8}{20}$

VI. $\frac{8}{20}$

VII. $\frac{90}{84}$

VIII. $\frac{105}{135}$

IX. $\frac{-35}{40}$

X. $\frac{10}{9}$

XI. $\frac{208}{256}$

XII. $\frac{-24}{21}$

XIII. $\frac{801}{702}$

XIV. $\frac{1,332}{2,880}$

Fraction Simplification Practice

Name: _____ **Key** _____

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Question 1

Simplify the following fractions

I. $\frac{3}{9}$

$$\frac{3 \div 3}{9 \div 3} = \frac{1}{3}$$

Factors of 3: 1, 3
Factors of 9: 1, 3, 9
Largest Shared Factor: 3

II. $\frac{16}{8}$

$$\frac{16 \div 8}{8 \div 8} = \frac{2}{1}$$

Factors of 16: 1, 2, 4, 8, 16
Factors of 8: 1, 2, 4, 8
Largest Shared Factor: 8

III. $\frac{20}{25}$

$$\frac{20 \div 5}{25 \div 5} = \frac{4}{5}$$

Factors of 20: 1, 2, 4, 5, 10, 20
Factors of 25: 1, 5, 25
Largest Shared Factor: 5

IV. $\frac{81}{135}$

$$\frac{81 \div 27}{135 \div 27} = \frac{3}{5}$$

Factors of 81: 1, 3, 9, 27, 81
Factors of 135: 1, 3, 5, 9, 15, 27, 45, 135
Largest Shared Factor: 27

V. $\frac{-8}{20}$

$$-\frac{8 \div 4}{20 \div 4} = -\frac{2}{5}$$

Factors of 8: 1, 2, 4, 8
Factors of 20: 1, 2, 4, 5, 10, 20
Largest Shared Factor: 4

VI. $\frac{8}{20}$

$$\frac{8 \div 4}{20 \div 4} = \frac{2}{5}$$

Factors of 8: 1, 2, 4, 8
Factors of 20: 1, 2, 4, 5, 10, 20
Largest Shared Factor: 4

VII. $\frac{90}{84}$

$$\frac{90 \div 6}{84 \div 6} = \frac{15}{14}$$

Factors of 90: 1, 2, 3, 5, 6, 9, 10, 15, 18, 30, 45, 90
Factors of 84: 1, 2, 3, 4, 6, 7, 12, 14, 21, 28, 42, 84
Largest Shared Factor: 6

VIII. $\frac{105}{135}$

$$\frac{105 \div 15}{135 \div 15} = \frac{7}{9}$$

Factors of 105: 1, 3, 5, 7, 15, 21, 35, 105
Factors of 135: 1, 3, 5, 9, 15, 27, 45, 135
Largest Shared Factor: 15

IX. $\frac{-35}{40}$

$$-\frac{35 \div 5}{40 \div 5} = -\frac{7}{8}$$

Factors of 35: 1, 5, 7, 35
Factors of 40: 1, 2, 4, 5, 8, 10, 20, 40
Largest Shared Factor: 5

X. $\frac{10}{9}$

$$\frac{10 \div 1}{9 \div 1} = \frac{10}{9}$$

Factors of 10: 1, 2, 5, 10
Factors of 9: 1, 3, 9
Largest Shared Factor: 1

XI. $\frac{208}{256}$

$$\frac{208 \div 16}{256 \div 16} = \frac{13}{16}$$

Factors of 208: 1, 2, 4, 8, 13, 16, 26, 52, 104, 208
Factors of 256: 1, 2, 4, 8, 16, 32, 64, 128, 256
Largest Shared Factor: 16

XII. $\frac{-24}{21}$

$$-\frac{24 \div 3}{21 \div 3} = -\frac{8}{7}$$

Factors of 24: 1, 2, 3, 4, 6, 8, 12, 24
Factors of 21: 1, 3, 7, 21
Largest Shared Factor: 3

XIII. $\frac{801}{702}$

$$\frac{801 \div 9}{702 \div 9} = \frac{89}{78}$$

Factors of 801: 1, 3, 9, 89, 267, 801
Factors of 702: 1, 2, 3, 6, 9, 13, 18, 26, 27, 39, 54, 78, 117, 234, 351, 702
Largest Shared Factor: 9

XIV. $\frac{1,332}{2,880}$

$$\frac{1,332 \div 36}{2,880 \div 36} = \frac{37}{80}$$

Factors of 1,332: 1, 2, 3, 4, 6, 9, 12, 18, 36, 37, 74, 111, 148, 222, 333, 444, 666, 1,332
Factors of 2,880: 1, 2, 3, 4, 5, 6, 8, 9, 10, 12, 15, 16, 18, 20, 24, 30, 32, 36, 40, 45, 48, 60, 64, 72, 80, 90, 96, 120, 144, 160, 180, 192, 240, 288, 320, 360, 480, 576, 720, 960, 1,440, 2,880
Largest Shared Factor: 36