Name: _____ Date: _____

Chapter 6 Practice Test

1. Identify your first step when solving each equation. Explain your reasoning.

a) $2x - 5 = 7x + 4$

b) $-5(3w + 4) = -20$

c) $\frac{2}{3}y + \frac{1}{2} = \frac{1}{4}y - \frac{5}{6}$

2. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $7k + 9 = 5$

b) $-\frac{x}{4} - 6 = 7$

c) $6m - \frac{1}{2} = -\frac{4}{5}$

d) $\frac{y}{5} + \frac{y}{3} = 16$

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e) $\frac{5}{3}x+\frac{3}{5}=\frac{1}{9}$

f) $\frac{1}{6}-\frac{5w}{4}=-4$

3. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $3(x+5)=12$

b) $-2(k-6)=7$

c) $6.3=-1.2(0.2w+2.45)$

d) $\frac{a-3}{5}=-6$

e) $\frac{3}{4}(x+3)=\frac{1}{2}$

f) $-\frac{4}{5}=\frac{1}{3}(4y+2)$

4. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $5y+5=2y-1$

b) $2(x+3)=-8x+6$

c) $-6(2k-3)=-7k$

d) $-\frac{2x-3}{2}=\frac{4x+1}{3}$

e) $\frac{1}{3}(4m-3)=\frac{2}{5}(2m-3)$

f) $5-(2x-1)+3(-5x+2)=-3(4x-6)+3x$

5. Arlene solved the equation $-\frac{5}{2}(4k-1)=\frac{3}{5}$ as follows:

$$
\begin{aligned}
-\frac{5}{2}(4k-1)&=\frac{3}{5}\\
10\times\left(-\frac{5}{2}\right)(4k-1)&=10\times\frac{3}{5}\\
-25(4k-1)&=6\\
-100k-25&=6\\
-100k-25+25&=6+25\\
-100k&=31\\
\frac{-100k}{-100}&=\frac{31}{-100}\\
k&=-\frac{31}{100}
\end{aligned}
$$

a) Explain the error in Arlene's reasoning.

b) Write the correct solution beside Arlene's work.

6. Create an equation for each of the following. Solve and check.

a) When a number is tripled, then increased by 13, the result is 82. Find the number.

b) Jane spent $42 for shoes. This was $14 less than twice what she spent for a blouse. How much was the blouse?

c) Effie and Kirsten live 23.6 km apart. They decided to cycle to the pool at the park, which is located between their homes. If Kirsten lives 5.2 km closer to the park, how far did they each cycle?

d) The length of a rectangular garden is 1 m more than three times the garden's width. If the perimeter of the garden is 34 m, find its dimensions.

e) The cash register in the school canteen contains x quarters and $(30 - x)$ dimes. If the total value of the coins is \$5.85, how many of each kind of coin are there?

Answers

1. Answers will vary. Samples:
a) Subtract $2x$ from both sides to collect like terms on the right side with a positive coefficient
b) Divide both sides by –5 to remove the brackets.
c) Multiply through by 12 to remove the fractions.

2. a) $-\frac{4}{7}$ **b)** -52 **c)** $-\frac{1}{20}$ **d)** 30 **e)** $-\frac{22}{75}$ **f)** $\frac{10}{3}$

3. a) -1 **b)** $\frac{5}{2}$ **c)** -38.5 **d)** -27 **e)** $-\frac{7}{3}$ **f)** $-\frac{11}{10}$

4. a) -2 **b)** 0 **c)** $\frac{18}{5}$ **d)** $\frac{1}{2}$ **e)** $-\frac{3}{8}$ **f)** $-\frac{3}{4}$

5. a) When Arlene expanded the brackets, she did not multiply two negatives to make a positive 25 on the left side.

b)

$$-\frac{5}{2}(4k-1)=\frac{3}{5}$$
$$10\times\left(-\frac{5}{2}\right)(4k-1)=10\times\frac{3}{5}$$
$$-25(4k-1)=6$$
$$-100k+25=6$$
$$-100k+25-25=6-25$$
$$-100k=-19$$
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6. a) $3x + 13 = 82$. The number is 23.
b) $2x - 14 = 42$. The blouse was \$28.
c) $2x + 5.2 = 23.6$. Kirsten cycled 9.2 km and Effie cycled 14.4 km.
d) $2w + 2(3w + 1) = 34$. The garden is 4 m wide and 13 m long.
e) $0.25x + 0.1(30 - x) = 5.85$. There were 19 quarters and 11 dimes in the cash register.

Name: _____ Date: _____

Chapter 6 Practice Test

1. Identify your first step when solving each equation. Explain your reasoning.

a) $2x - 5 = 7x + 4$

b) $-5(3w + 4) = -20$

c) $\frac{2}{3}y + \frac{1}{2} = \frac{1}{4}y - \frac{5}{6}$

2. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $7k + 9 = 5$

b) $-\frac{x}{4} - 6 = 7$

c) $6m - \frac{1}{2} = -\frac{4}{5}$

d) $\frac{y}{5} + \frac{y}{3} = 16$

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e) $\frac{5}{3}x+\frac{3}{5}=\frac{1}{9}$

f) $\frac{1}{6}-\frac{5w}{4}=-4$

3. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $3(x+5)=12$

b) $-2(k-6)=7$

c) $6.3=-1.2(0.2w+2.45)$

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4. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $5y+5=2y-1$

b) $2(x+3)=-8x+6$

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5. Arlene solved the equation $-\frac{5}{2}(4k-1)=\frac{3}{5}$ as follows:

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d) The length of a rectangular garden is 1 m more than three times the garden's width. If the perimeter of the garden is 34 m, find its dimensions.

e) The cash register in the school canteen contains x quarters and $(30 - x)$ dimes. If the total value of the coins is \$5.85, how many of each kind of coin are there?

Answers

1. Answers will vary. Samples:
a) Subtract $2x$ from both sides to collect like terms on the right side with a positive coefficient
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5. a) When Arlene expanded the brackets, she did not multiply two negatives to make a positive 25 on the left side.

b)

$$-\frac{5}{2}(4k-1)=\frac{3}{5}$$
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c) Effie and Kirsten live 23.6 km apart. They decided to cycle to the pool at the park, which is located between their homes. If Kirsten lives 5.2 km closer to the park, how far did they each cycle?

d) The length of a rectangular garden is 1 m more than three times the garden's width. If the perimeter of the garden is 34 m, find its dimensions.

e) The cash register in the school canteen contains x quarters and $(30 - x)$ dimes. If the total value of the coins is \$5.85, how many of each kind of coin are there?

Answers

1. Answers will vary. Samples:
a) Subtract $2x$ from both sides to collect like terms on the right side with a positive coefficient
b) Divide both sides by –5 to remove the brackets.
c) Multiply through by 12 to remove the fractions.

2. a) $-\frac{4}{7}$ **b)** -52 **c)** $-\frac{1}{20}$ **d)** 30 **e)** $-\frac{22}{75}$ **f)** $\frac{10}{3}$

3. a) -1 **b)** $\frac{5}{2}$ **c)** -38.5 **d)** -27 **e)** $-\frac{7}{3}$ **f)** $-\frac{11}{10}$

4. a) -2 **b)** 0 **c)** $\frac{18}{5}$ **d)** $\frac{1}{2}$ **e)** $-\frac{3}{8}$ **f)** $-\frac{3}{4}$

5. a) When Arlene expanded the brackets, she did not multiply two negatives to make a positive 25 on the left side.

b)

$$-\frac{5}{2}(4k-1)=\frac{3}{5}$$
$$10\times\left(-\frac{5}{2}\right)(4k-1)=10\times\frac{3}{5}$$
$$-25(4k-1)=6$$
$$-100k+25=6$$
$$-100k+25-25=6-25$$
$$-100k=-19$$
$$\frac{-100k}{-100}=\frac{-19}{-100}$$
$$k=\frac{19}{100}$$

6. a) $3x + 13 = 82$. The number is 23.
b) $2x - 14 = 42$. The blouse was \$28.
c) $2x + 5.2 = 23.6$. Kirsten cycled 9.2 km and Effie cycled 14.4 km.
d) $2w + 2(3w + 1) = 34$. The garden is 4 m wide and 13 m long.
e) $0.25x + 0.1(30 - x) = 5.85$. There were 19 quarters and 11 dimes in the cash register.

Name: _____ Date: _____

Chapter 6 Practice Test

1. Identify your first step when solving each equation. Explain your reasoning.

a) $2x - 5 = 7x + 4$

b) $-5(3w + 4) = -20$

c) $\frac{2}{3}y + \frac{1}{2} = \frac{1}{4}y - \frac{5}{6}$

2. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $7k + 9 = 5$

b) $-\frac{x}{4} - 6 = 7$

c) $6m - \frac{1}{2} = -\frac{4}{5}$

d) $\frac{y}{5} + \frac{y}{3} = 16$

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e) $\frac{5}{3}x+\frac{3}{5}=\frac{1}{9}$

f) $\frac{1}{6}-\frac{5w}{4}=-4$

3. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $3(x+5)=12$

b) $-2(k-6)=7$

c) $6.3=-1.2(0.2w+2.45)$

d) $\frac{a-3}{5}=-6$

e) $\frac{3}{4}(x+3)=\frac{1}{2}$

f) $-\frac{4}{5}=\frac{1}{3}(4y+2)$

4. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $5y+5=2y-1$

b) $2(x+3)=-8x+6$

c) $-6(2k-3)=-7k$

d) $-\frac{2x-3}{2}=\frac{4x+1}{3}$

e) $\frac{1}{3}(4m-3)=\frac{2}{5}(2m-3)$

f) $5-(2x-1)+3(-5x+2)=-3(4x-6)+3x$

5. Arlene solved the equation $-\frac{5}{2}(4k-1)=\frac{3}{5}$ as follows:

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\begin{aligned}
-\frac{5}{2}(4k-1)&=\frac{3}{5}\\
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-25(4k-1)&=6\\
-100k-25&=6\\
-100k-25+25&=6+25\\
-100k&=31\\
\frac{-100k}{-100}&=\frac{31}{-100}\\
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a) Explain the error in Arlene's reasoning.

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6. Create an equation for each of the following. Solve and check.

a) When a number is tripled, then increased by 13, the result is 82. Find the number.

b) Jane spent $42 for shoes. This was $14 less than twice what she spent for a blouse. How much was the blouse?

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d) The length of a rectangular garden is 1 m more than three times the garden's width. If the perimeter of the garden is 34 m, find its dimensions.

e) The cash register in the school canteen contains x quarters and $(30 - x)$ dimes. If the total value of the coins is \$5.85, how many of each kind of coin are there?

Answers

1. Answers will vary. Samples:
a) Subtract $2x$ from both sides to collect like terms on the right side with a positive coefficient
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5. a) When Arlene expanded the brackets, she did not multiply two negatives to make a positive 25 on the left side.

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2. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $7k + 9 = 5$

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3. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $3(x+5)=12$

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2. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $7k + 9 = 5$

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c) $6m - \frac{1}{2} = -\frac{4}{5}$

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f) $\frac{1}{6}-\frac{5w}{4}=-4$

3. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $3(x+5)=12$

b) $-2(k-6)=7$

c) $6.3=-1.2(0.2w+2.45)$

d) $\frac{a-3}{5}=-6$

e) $\frac{3}{4}(x+3)=\frac{1}{2}$

f) $-\frac{4}{5}=\frac{1}{3}(4y+2)$

4. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $5y+5=2y-1$

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e) $\frac{1}{3}(4m-3)=\frac{2}{5}(2m-3)$

f) $5-(2x-1)+3(-5x+2)=-3(4x-6)+3x$

5. Arlene solved the equation $-\frac{5}{2}(4k-1)=\frac{3}{5}$ as follows:

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-25(4k-1)&=6\\
-100k-25&=6\\
-100k-25+25&=6+25\\
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a) Explain the error in Arlene's reasoning.

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e) The cash register in the school canteen contains x quarters and $(30 - x)$ dimes. If the total value of the coins is \$5.85, how many of each kind of coin are there?

Answers

1. Answers will vary. Samples:
a) Subtract $2x$ from both sides to collect like terms on the right side with a positive coefficient
b) Divide both sides by –5 to remove the brackets.
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2. a) $-\frac{4}{7}$ **b)** -52 **c)** $-\frac{1}{20}$ **d)** 30 **e)** $-\frac{22}{75}$ **f)** $\frac{10}{3}$

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5. a) When Arlene expanded the brackets, she did not multiply two negatives to make a positive 25 on the left side.

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$$10\times\left(-\frac{5}{2}\right)(4k-1)=10\times\frac{3}{5}$$
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d) $2w + 2(3w + 1) = 34$. The garden is 4 m wide and 13 m long.
e) $0.25x + 0.1(30 - x) = 5.85$. There were 19 quarters and 11 dimes in the cash register.

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Chapter 6 Practice Test

1. Identify your first step when solving each equation. Explain your reasoning.

a) $2x - 5 = 7x + 4$

b) $-5(3w + 4) = -20$

c) $\frac{2}{3}y + \frac{1}{2} = \frac{1}{4}y - \frac{5}{6}$

2. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $7k + 9 = 5$

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c) $6m - \frac{1}{2} = -\frac{4}{5}$

d) $\frac{y}{5} + \frac{y}{3} = 16$

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e) $\frac{5}{3}x+\frac{3}{5}=\frac{1}{9}$

f) $\frac{1}{6}-\frac{5w}{4}=-4$

3. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $3(x+5)=12$

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5. a) When Arlene expanded the brackets, she did not multiply two negatives to make a positive 25 on the left side.

b)

$$-\frac{5}{2}(4k-1)=\frac{3}{5}$$
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d) The length of a rectangular garden is 1 m more than three times the garden's width. If the perimeter of the garden is 34 m, find its dimensions.

e) The cash register in the school canteen contains x quarters and $(30 - x)$ dimes. If the total value of the coins is \$5.85, how many of each kind of coin are there?

Answers

1. Answers will vary. Samples:
a) Subtract $2x$ from both sides to collect like terms on the right side with a positive coefficient
b) Divide both sides by –5 to remove the brackets.
c) Multiply through by 12 to remove the fractions.

2. a) $-\frac{4}{7}$ **b)** -52 **c)** $-\frac{1}{20}$ **d)** 30 **e)** $-\frac{22}{75}$ **f)** $\frac{10}{3}$

3. a) -1 **b)** $\frac{5}{2}$ **c)** -38.5 **d)** -27 **e)** $-\frac{7}{3}$ **f)** $-\frac{11}{10}$

4. a) -2 **b)** 0 **c)** $\frac{18}{5}$ **d)** $\frac{1}{2}$ **e)** $-\frac{3}{8}$ **f)** $-\frac{3}{4}$

5. a) When Arlene expanded the brackets, she did not multiply two negatives to make a positive 25 on the left side.

b)

$$-\frac{5}{2}(4k-1)=\frac{3}{5}$$
$$10\times\left(-\frac{5}{2}\right)(4k-1)=10\times\frac{3}{5}$$
$$-25(4k-1)=6$$
$$-100k+25=6$$
$$-100k+25-25=6-25$$
$$-100k=-19$$
$$\frac{-100k}{-100}=\frac{-19}{-100}$$
$$k=\frac{19}{100}$$

6. a) $3x + 13 = 82$. The number is 23.
b) $2x - 14 = 42$. The blouse was \$28.
c) $2x + 5.2 = 23.6$. Kirsten cycled 9.2 km and Effie cycled 14.4 km.
d) $2w + 2(3w + 1) = 34$. The garden is 4 m wide and 13 m long.
e) $0.25x + 0.1(30 - x) = 5.85$. There were 19 quarters and 11 dimes in the cash register.

Name: _____ Date: _____

Chapter 6 Practice Test

1. Identify your first step when solving each equation. Explain your reasoning.

a) $2x - 5 = 7x + 4$

b) $-5(3w + 4) = -20$

c) $\frac{2}{3}y + \frac{1}{2} = \frac{1}{4}y - \frac{5}{6}$

2. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $7k + 9 = 5$

b) $-\frac{x}{4} - 6 = 7$

c) $6m - \frac{1}{2} = -\frac{4}{5}$

d) $\frac{y}{5} + \frac{y}{3} = 16$

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e) $\frac{5}{3}x+\frac{3}{5}=\frac{1}{9}$

f) $\frac{1}{6}-\frac{5w}{4}=-4$

3. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $3(x+5)=12$

b) $-2(k-6)=7$

c) $6.3=-1.2(0.2w+2.45)$

d) $\frac{a-3}{5}=-6$

e) $\frac{3}{4}(x+3)=\frac{1}{2}$

f) $-\frac{4}{5}=\frac{1}{3}(4y+2)$

4. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $5y+5=2y-1$

b) $2(x+3)=-8x+6$

c) $-6(2k-3)=-7k$

d) $-\frac{2x-3}{2}=\frac{4x+1}{3}$

e) $\frac{1}{3}(4m-3)=\frac{2}{5}(2m-3)$

f) $5-(2x-1)+3(-5x+2)=-3(4x-6)+3x$

5. Arlene solved the equation $-\frac{5}{2}(4k-1)=\frac{3}{5}$ as follows:

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\begin{aligned}
-\frac{5}{2}(4k-1)&=\frac{3}{5}\\
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-25(4k-1)&=6\\
-100k-25&=6\\
-100k-25+25&=6+25\\
-100k&=31\\
\frac{-100k}{-100}&=\frac{31}{-100}\\
k&=-\frac{31}{100}
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a) Explain the error in Arlene's reasoning.

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6. Create an equation for each of the following. Solve and check.

a) When a number is tripled, then increased by 13, the result is 82. Find the number.

b) Jane spent $42 for shoes. This was $14 less than twice what she spent for a blouse. How much was the blouse?

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d) The length of a rectangular garden is 1 m more than three times the garden's width. If the perimeter of the garden is 34 m, find its dimensions.

e) The cash register in the school canteen contains x quarters and $(30 - x)$ dimes. If the total value of the coins is \$5.85, how many of each kind of coin are there?

Answers

1. Answers will vary. Samples:
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5. a) When Arlene expanded the brackets, she did not multiply two negatives to make a positive 25 on the left side.

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2. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $7k + 9 = 5$

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3. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $3(x+5)=12$

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a) $7k + 9 = 5$

b) $-\frac{x}{4} - 6 = 7$

c) $6m - \frac{1}{2} = -\frac{4}{5}$

d) $\frac{y}{5} + \frac{y}{3} = 16$

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e) $\frac{5}{3}x+\frac{3}{5}=\frac{1}{9}$

f) $\frac{1}{6}-\frac{5w}{4}=-4$

3. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $3(x+5)=12$

b) $-2(k-6)=7$

c) $6.3=-1.2(0.2w+2.45)$

d) $\frac{a-3}{5}=-6$

e) $\frac{3}{4}(x+3)=\frac{1}{2}$

f) $-\frac{4}{5}=\frac{1}{3}(4y+2)$

4. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $5y+5=2y-1$

b) $2(x+3)=-8x+6$

c) $-6(2k-3)=-7k$

d) $-\frac{2x-3}{2}=\frac{4x+1}{3}$

e) $\frac{1}{3}(4m-3)=\frac{2}{5}(2m-3)$

f) $5-(2x-1)+3(-5x+2)=-3(4x-6)+3x$

5. Arlene solved the equation $-\frac{5}{2}(4k-1)=\frac{3}{5}$ as follows:

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\begin{aligned}
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-25(4k-1)&=6\\
-100k-25&=6\\
-100k-25+25&=6+25\\
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a) Explain the error in Arlene's reasoning.

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e) The cash register in the school canteen contains x quarters and $(30 - x)$ dimes. If the total value of the coins is \$5.85, how many of each kind of coin are there?

Answers

1. Answers will vary. Samples:
a) Subtract $2x$ from both sides to collect like terms on the right side with a positive coefficient
b) Divide both sides by –5 to remove the brackets.
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2. a) $-\frac{4}{7}$ **b)** -52 **c)** $-\frac{1}{20}$ **d)** 30 **e)** $-\frac{22}{75}$ **f)** $\frac{10}{3}$

3. a) -1 **b)** $\frac{5}{2}$ **c)** -38.5 **d)** -27 **e)** $-\frac{7}{3}$ **f)** $-\frac{11}{10}$

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5. a) When Arlene expanded the brackets, she did not multiply two negatives to make a positive 25 on the left side.

b)

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$$10\times\left(-\frac{5}{2}\right)(4k-1)=10\times\frac{3}{5}$$
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d) $2w + 2(3w + 1) = 34$. The garden is 4 m wide and 13 m long.
e) $0.25x + 0.1(30 - x) = 5.85$. There were 19 quarters and 11 dimes in the cash register.

Name: _____ Date: _____

Chapter 6 Practice Test

1. Identify your first step when solving each equation. Explain your reasoning.

a) $2x - 5 = 7x + 4$

b) $-5(3w + 4) = -20$

c) $\frac{2}{3}y + \frac{1}{2} = \frac{1}{4}y - \frac{5}{6}$

2. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $7k + 9 = 5$

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c) $6m - \frac{1}{2} = -\frac{4}{5}$

d) $\frac{y}{5} + \frac{y}{3} = 16$

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e) $\frac{5}{3}x+\frac{3}{5}=\frac{1}{9}$

f) $\frac{1}{6}-\frac{5w}{4}=-4$

3. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $3(x+5)=12$

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5. a) When Arlene expanded the brackets, she did not multiply two negatives to make a positive 25 on the left side.

b)

$$-\frac{5}{2}(4k-1)=\frac{3}{5}$$
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d) The length of a rectangular garden is 1 m more than three times the garden's width. If the perimeter of the garden is 34 m, find its dimensions.

e) The cash register in the school canteen contains x quarters and $(30 - x)$ dimes. If the total value of the coins is \$5.85, how many of each kind of coin are there?

Answers

1. Answers will vary. Samples:
a) Subtract $2x$ from both sides to collect like terms on the right side with a positive coefficient
b) Divide both sides by –5 to remove the brackets.
c) Multiply through by 12 to remove the fractions.

2. a) $-\frac{4}{7}$ **b)** -52 **c)** $-\frac{1}{20}$ **d)** 30 **e)** $-\frac{22}{75}$ **f)** $\frac{10}{3}$

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4. a) -2 **b)** 0 **c)** $\frac{18}{5}$ **d)** $\frac{1}{2}$ **e)** $-\frac{3}{8}$ **f)** $-\frac{3}{4}$

5. a) When Arlene expanded the brackets, she did not multiply two negatives to make a positive 25 on the left side.

b)

$$-\frac{5}{2}(4k-1)=\frac{3}{5}$$
$$10\times\left(-\frac{5}{2}\right)(4k-1)=10\times\frac{3}{5}$$
$$-25(4k-1)=6$$
$$-100k+25=6$$
$$-100k+25-25=6-25$$
$$-100k=-19$$
$$\frac{-100k}{-100}=\frac{-19}{-100}$$
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6. a) $3x + 13 = 82$. The number is 23.
b) $2x - 14 = 42$. The blouse was \$28.
c) $2x + 5.2 = 23.6$. Kirsten cycled 9.2 km and Effie cycled 14.4 km.
d) $2w + 2(3w + 1) = 34$. The garden is 4 m wide and 13 m long.
e) $0.25x + 0.1(30 - x) = 5.85$. There were 19 quarters and 11 dimes in the cash register.

Name: _____ Date: _____

Chapter 6 Practice Test

1. Identify your first step when solving each equation. Explain your reasoning.

a) $2x - 5 = 7x + 4$

b) $-5(3w + 4) = -20$

c) $\frac{2}{3}y + \frac{1}{2} = \frac{1}{4}y - \frac{5}{6}$

2. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $7k + 9 = 5$

b) $-\frac{x}{4} - 6 = 7$

c) $6m - \frac{1}{2} = -\frac{4}{5}$

d) $\frac{y}{5} + \frac{y}{3} = 16$

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e) $\frac{5}{3}x+\frac{3}{5}=\frac{1}{9}$

f) $\frac{1}{6}-\frac{5w}{4}=-4$

3. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $3(x+5)=12$

b) $-2(k-6)=7$

c) $6.3=-1.2(0.2w+2.45)$

d) $\frac{a-3}{5}=-6$

e) $\frac{3}{4}(x+3)=\frac{1}{2}$

f) $-\frac{4}{5}=\frac{1}{3}(4y+2)$

4. Solve each equation. Express fractions in lowest terms. Show a check for at least one.

a) $5y+5=2y-1$

b) $2(x+3)=-8x+6$

c) $-6(2k-3)=-7k$

d) $-\frac{2x-3}{2}=\frac{4x+1}{3}$

e) $\frac{1}{3}(4m-3)=\frac{2}{5}(2m-3)$

f) $5-(2x-1)+3(-5x+2)=-3(4x-6)+3x$

5. Arlene solved the equation $-\frac{5}{2}(4k-1)=\frac{3}{5}$ as follows:

$$
\begin{aligned}
-\frac{5}{2}(4k-1)&=\frac{3}{5}\\
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-25(4k-1)&=6\\
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-100k-25+25&=6+25\\
-100k&=31\\
\frac{-100k}{-100}&=\frac{31}{-100}\\
k&=-\frac{31}{100}
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$$

a) Explain the error in Arlene's reasoning.

b) Write the correct solution beside Arlene's work.

6. Create an equation for each of the following. Solve and check.

a) When a number is tripled, then increased by 13, the result is 82. Find the number.

b) Jane spent $42 for shoes. This was $14 less than twice what she spent for a blouse. How much was the blouse?

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