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Simplifying Expressions with Fractions

Directions: Read each problem carefully. Fill in the answer circle that shows the expression in its simplest form.

Samples:

A. $2\frac{1}{4}x + 1\frac{3}{4}x - \frac{1}{4}x$

   Ⓐ $\frac{3}{4}$

   Ⓑ $\frac{2}{3}$

   Ⓒ $3\frac{3}{4}x$

   Ⓓ $\frac{4}{10}x$

B. $\frac{5}{9}r - \frac{2}{9}r - \frac{1}{9}r$

   Ⓔ $\frac{2}{9}r$

   Ⓕ $\frac{2}{9}$

   Ⓖ $\frac{7}{10}r$

   Ⓗ $\frac{3}{4}r$

---

1. $5\frac{7}{12}x + \frac{2}{12}x + 1\frac{2}{12}x$

   Ⓐ $6x$ Ⓒ $6\frac{11}{12}x$

   Ⓑ $\frac{11}{12}x$ Ⓓ none of these

5. $3\frac{7}{10}b + 2\frac{9}{10}b - 4\frac{3}{10}b$

   Ⓐ $\frac{3}{10}b$ Ⓒ $2b$

   Ⓑ $2\frac{3}{10}b$ Ⓓ $6\frac{3}{5}b$

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2. $3\frac{8}{9}y - 1\frac{7}{9}y - \frac{4}{9}y$

   Ⓔ $1\frac{3}{4}y$ Ⓖ $2\frac{2}{3}y$

   Ⓕ $\frac{2}{3}y$ Ⓗ $1\frac{2}{3}y$

6. $7\frac{2}{12}q + 2\frac{9}{12}q - \frac{8}{12}q$

   Ⓔ $\frac{1}{4}q$ Ⓖ $8\frac{1}{12}q$

   Ⓕ $9\frac{3}{12}q$ Ⓗ $9\frac{3}{4}q$

---

3. $7\frac{5}{6}p - 2\frac{1}{6}p - 3\frac{5}{6}p$

   Ⓐ $1\frac{5}{6}p$ Ⓒ $1p$

   Ⓑ $\frac{5}{6}p$ Ⓓ $1\frac{7}{6}p$

7. $3\frac{7}{8}t - 1\frac{1}{8}t - 1\frac{3}{8}t$

   Ⓐ $\frac{3}{8}t$ Ⓒ $\frac{2}{12}t$

   Ⓑ $1\frac{2}{8}t$ Ⓓ none of these

---

4. $3\frac{7}{12}e - 2\frac{4}{12}e$

   Ⓔ $\frac{1}{4}$ Ⓖ $1\frac{3}{4}e$

   Ⓕ $1\frac{1}{4}e$ Ⓗ $\frac{1}{3}e$

8. $5\frac{3}{10}y + 4\frac{7}{30}y - 8\frac{4}{10}y$

   Ⓔ $2\frac{3}{5}y$ Ⓖ $\frac{3}{5}y$

   Ⓕ $8\frac{6}{10}y$ Ⓗ $1\frac{3}{5}y$

   STOP

Probability

Directions: Use the spinner to answer questions 1 through 4. Fill in the correct answer circle.
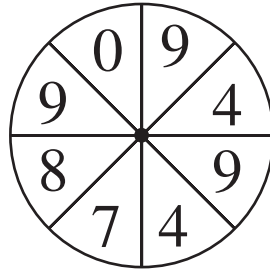
1. If winning at a particular game depended upon how many times a number on this spinner came up, would you consider this game to be fair?

   Ⓐ yes   Ⓑ no

2. State the probability of P(0).

   Ⓒ 1 : 8   Ⓓ 0 : 8   Ⓔ 8 : 8   Ⓕ 2.8

3. State the probability of P(4).

   Ⓐ 8 : 2   Ⓑ 2 : 8   Ⓒ 4 : 8   Ⓓ 8 : 8

4. State the probability of P(9).

   Ⓔ 9 : 8   Ⓕ 2 : 8   Ⓖ 3 : 8   Ⓗ 9 : 9

Directions : For questions 5-8, find each probability for a pair of dice.

   P(1)

   Ⓐ 1 : 12   Ⓑ 2.12   Ⓒ 12 : 12   Ⓓ 9 : 9

6. P(even)

   Ⓔ 2 : 12   Ⓕ 6 : 6   Ⓖ 12 : 6   Ⓗ 6 : 12

7. P(odd)

   Ⓐ 6 : 12   Ⓑ 12 : 6   Ⓒ 3 : 3   Ⓓ 7 : 12

8. P(less than 1)

   Ⓐ 2 : 12   Ⓑ 12 : 2   Ⓒ 12 : 12   Ⓓ 0 : 12

9. State the probability of human beings growing wings.

   Ⓔ possible   Ⓕ impossible   Ⓖ certain   Ⓗ likely

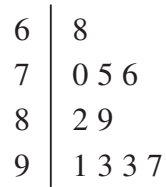10. State the probability that it will rain in Kansas on Tuesday.

    Ⓐ impossible   Ⓑ possible   Ⓒ certain   Ⓓ none of these   **STOP**

Directions: Read each question and problem carefully. Fill in the correct answer circle.

Miranda took several math tests during the month of October. This stem-and-leaf plot represents the grades she received on those tests.

```
6 | 8
7 | 0 5 6
8 | 2 9
9 | 1 3 3 7
```

1. According to this plot, how many tests did Miranda take?

Ⓐ   11   Ⓑ   10   Ⓒ   14   Ⓓ   15

2. According to this plot, what was Miranda's lowest score?

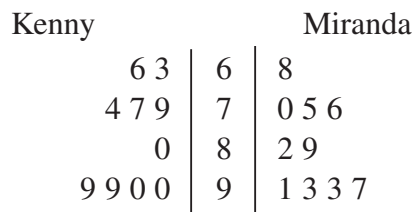Ⓔ   70   Ⓕ   56   Ⓖ   67   Ⓗ   68

3. In which interval were most of her grades?

Ⓐ   91 – 97   Ⓑ   93   Ⓒ   70 – 76   Ⓓ   82 – 89

4. What grade did Miranda achieve twice?

Ⓔ   F   Ⓕ   70   Ⓖ   93   Ⓗ   80

This back-to-back stem-and-leaf plot represents the math grades for both Miranda and Kenny for the month of October.

```
    Kenny          Miranda
    6 3 | 6 | 8
    4 7 9 | 7 | 0 5 6
        0 | 8 | 2 9
9 9 0 0 | 9 | 1 3 3 7
```

5. What was the highest grade received?

Ⓐ   99   Ⓑ   100   Ⓒ   97   Ⓓ   93

6. What was the lowest grade received by either student?

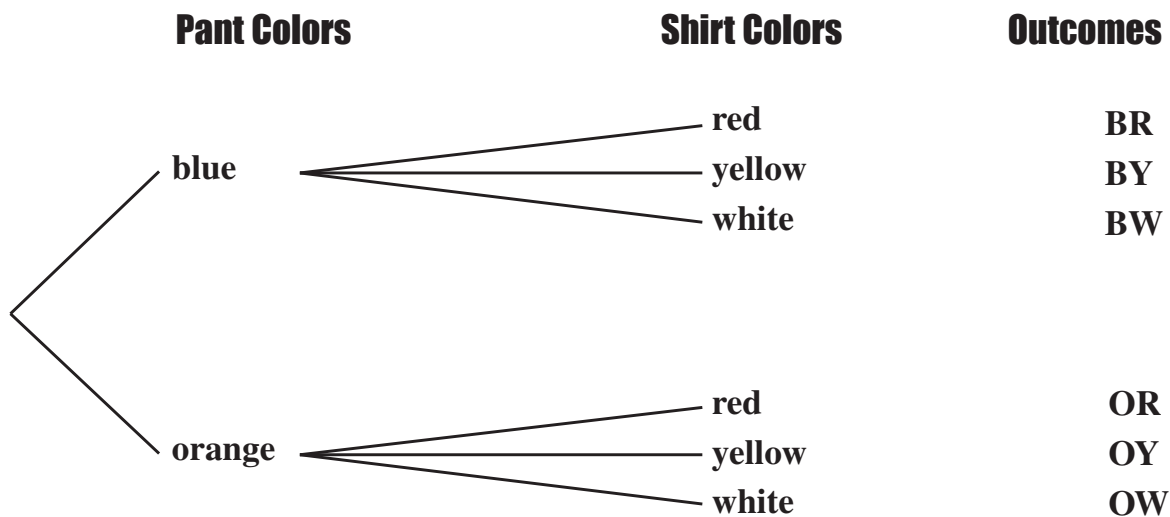Ⓔ   66   Ⓕ   36   Ⓖ   63   Ⓗ   47

7. Which of the following are Kenny's grades?

A.   63, 36, 47, 77, 97, 0, 99, 99, 0, 0   C. 86, 67, 57, 0, 98, 92, 79, 39, 39, 19
B.   68, 70, 75, 76, 82, 89, 91, 93, 93, 97   D. 63, 66, 74, 77, 79, 80, 90, 90, 99, 99

GO

Probability and Statistics

Directions: Read each question and problem carefully. Fill in the correct answer circle.

Pant Colors	Shirt Colors	Outcomes
blue	red	BR
	yellow	BY
	white	BW
orange	red	OR
	yellow	OY
	white	OW

1. What is the name of this graph?

   Ⓐ   arrow diagram

   Ⓑ   box-and-whisker plot

   Ⓒ   tree diagram

   Ⓓ   stem-and-leaf plot

2. How many possible outcomes are there?

   Ⓔ   14

   Ⓕ   2

   Ⓖ   8

   Ⓗ   6

3. The school cafeteria offers the following types of bread with the following types of sandwich filling. How many different types of sandwiches could be made from using these ingredients?

   Types of Bread: rye, wheat, white, raisin bread, Kaiser roll.

   Types of Sandwich Filling: tuna, veggies, chicken, egg salad, ham, cheese.

   Ⓐ   5

   Ⓑ   30

   Ⓒ   6

   Ⓓ   60

GO