

Predict whether a fraction terminates or repeats

NAME	DATE	SCORE / 10
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1 Does the decimal form of $\frac{41}{50}$ stop or repeat, and why?

- ☐ It repeats. $50 = 2 \times 5 \times 5$, and 50 is not a power of 10.
- ☐ It stops. $50 = 2 \times 5 \times 5$, with no prime factor other than 2 or 5.
- ☐ It repeats, because $\frac{41}{50}$ cannot be simplified.

2 Which of these fractions have a decimal form that terminates?

Tick every answer that is true.

- ☐ **A** $\frac{13}{15}$
- ☐ **B** $\frac{1}{6}$
- ☐ **C** $\frac{3}{8}$
- ☐ **D** $\frac{1}{8}$
- ☐ **E** $\frac{1}{2}$

3 Without dividing, which fraction has a decimal form that stops?

- ☐ $\frac{44}{45}$ ☐ $\frac{1}{20}$ ☐ $\frac{1}{30}$ ☐ $\frac{32}{35}$

4

Which of these fractions have a decimal form that terminates?

Tick every answer that is true.

☐ **A** $\frac{39}{40}$

☐ **B** $\frac{1}{6}$

☐ **C** $\frac{3}{4}$

☐ **D** $\frac{1}{8}$

☐ **E** $\frac{9}{11}$

5

Does the decimal form of $\frac{2}{35}$ stop or repeat, and why?

☐ It repeats. $35 = 5 \times 7$, and 7 is a prime factor other than 2 or 5.

☐ It stops. $35 = 5 \times 7$, and 5 is a factor of 35. ☐ It stops, because 35 ends in 5.

6

Which of these fractions have a decimal form that terminates?

Tick every answer that is true.

☐ **A** $\frac{1}{8}$

☐ **B** $\frac{2}{25}$

☐ **C** $\frac{3}{4}$

☐ **D** $\frac{8}{11}$

☐ **E** $\frac{5}{11}$

7

Does the decimal form of $\frac{13}{24}$ stop or repeat, and why?

☐ It repeats. $24 = 2 \times 2 \times 2 \times 3$, and 3 is a prime factor other than 2 or 5.

☐ It stops. $24 = 2 \times 2 \times 2 \times 3$, and 2 is a factor of 24. ☐ It stops, because 24 is even.

8

Which of these fractions have a decimal form that terminates?

Tick every answer that is true.

☐ **A** $\frac{1}{2}$

☐ **B** $\frac{5}{8}$

☐ **C** $\frac{7}{15}$

☐ **D** $\frac{10}{11}$

9

Does the decimal form of $\frac{1}{80}$ stop or repeat, and why?

- ☐ It repeats. $80 = 2 \times 2 \times 2 \times 2 \times 5$, and 80 is not a power of 10.
- ☐ It stops. $80 = 2 \times 2 \times 2 \times 2 \times 5$, with no prime factor other than 2 or 5.
- ☐ It repeats, because $\frac{1}{80}$ cannot be simplified.

10

Which of these fractions have a decimal form that terminates?

Tick every answer that is true.

☐ **A** $\frac{2}{7}$

☐ **B** $\frac{3}{7}$

☐ **C** $\frac{4}{5}$

☐ **D** $\frac{9}{40}$

Predict whether a fraction terminates or repeats

1 It stops. $50 = 2 \times 5 \times 5$, with no prime factor other than 2 or 5.

3 $1/20$

5 It repeats. $35 = 5 \times 7$, and 7 is a prime factor other than 2 or 5.

7 It repeats. $24 = 2 \times 2 \times 2 \times 3$, and 3 is a prime factor other than 2 or 5.

9 It stops. $80 = 2 \times 2 \times 2 \times 2 \times 5$, with no prime factor other than 2 or 5.

2 C, D, E

Tick exactly these: C: $3/8$; D: $1/8$; E: $1/2$. One missed or one extra is wrong.

4 A, C, D

Tick exactly these: A: $39/40$; C: $3/4$; D: $1/8$. One missed or one extra is wrong.

6 A, B, C

Tick exactly these: A: $1/8$; B: $2/25$; C: $3/4$. One missed or one extra is wrong.

8 A, B

Tick exactly these: A: $1/2$; B: $5/8$. One missed or one extra is wrong.

10 C, D

Tick exactly these: C: $4/5$; D: $9/40$. One missed or one extra is wrong.