

Predict whether a fraction terminates or repeats

NAME	DATE	SCORE / 10
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1 Without dividing, which fraction has a decimal form that stops?

- ☐ $\frac{13}{40}$
 ☐ $\frac{5}{14}$
 ☐ $\frac{13}{24}$
 ☐ $\frac{11}{15}$

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

Tick every answer that is true.

- ☐ **A** $\frac{1}{2}$
☐ **B** $\frac{1}{8}$
☐ **C** $\frac{5}{16}$
☐ **D** $\frac{5}{6}$
☐ **E** $\frac{1}{9}$

3 Does the decimal form of $\frac{21}{40}$ stop or repeat, and why?

- ☐ It stops. $40 = 2 \times 2 \times 2 \times 5$, with no prime factor other than 2 or 5.
☐ It repeats. $40 = 2 \times 2 \times 2 \times 5$, and 40 is not a power of 10.
☐ It repeats, because $\frac{21}{40}$ cannot be simplified.

4

Which of these fractions have a decimal form that terminates?

Tick every answer that is true.

☐ **A** $\frac{1}{2}$

☐ **B** $\frac{7}{11}$

☐ **C** $\frac{1}{12}$

☐ **D** $\frac{1}{25}$

☐ **E** $\frac{2}{5}$

5

Does the decimal form of $\frac{8}{15}$ stop or repeat, and why?

☐ It repeats. $15 = 3 \times 5$, and 3 is a prime factor other than 2 or 5.

☐ It stops, because 15 ends in 5. ☐ It stops. $15 = 3 \times 5$, and 5 is a factor of 15.

6

Which of these fractions have a decimal form that terminates?

Tick every answer that is true.

☐ **A** $\frac{9}{20}$

☐ **B** $\frac{1}{8}$

☐ **C** $\frac{2}{3}$

☐ **D** $\frac{15}{16}$

☐ **E** $\frac{1}{3}$

7

Does the decimal form of $\frac{11}{12}$ stop or repeat, and why?

☐ It stops, because 12 is even.

☐ It repeats. $12 = 2 \times 2 \times 3$, and 3 is a prime factor other than 2 or 5.

☐ It stops. $12 = 2 \times 2 \times 3$, and 2 is a factor of 12.

8

Which of these fractions have a decimal form that terminates?

Tick every answer that is true.

☐ **A** $\frac{3}{4}$

☐ **B** $\frac{13}{40}$

☐ **C** $\frac{3}{11}$

☐ **D** $\frac{1}{3}$

9Does the decimal form of $\frac{8}{25}$ stop or repeat, and why?☐ It repeats, because $\frac{8}{25}$ cannot be simplified.☐ It repeats. $25 = 5 \times 5$, and 25 is not a power of 10.☐ It stops. $25 = 5 \times 5$, with no prime factor other than 2 or 5.**10**

Which of these fractions have a decimal form that terminates?

Tick every answer that is true.

☐ **A** $\frac{2}{15}$

☐ **B** $\frac{1}{2}$

☐ **C** $\frac{5}{7}$

☐ **D** $\frac{3}{4}$

☐ **E** $\frac{2}{5}$

Predict whether a fraction terminates or repeats

1 13/40

3 It stops. $40 = 2 \times 2 \times 2 \times 5$, with no prime factor other than 2 or 5.

5 It repeats. $15 = 3 \times 5$, and 3 is a prime factor other than 2 or 5.

7 It repeats. $12 = 2 \times 2 \times 3$, and 3 is a prime factor other than 2 or 5.

9 It stops. $25 = 5 \times 5$, with no prime factor other than 2 or 5.

2 A, B, C

Tick exactly these: A: 1/2; B: 1/8; C: 5/16. One missed or one extra is wrong.

4 A, D, E

Tick exactly these: A: 1/2; D: 1/25; E: 2/5. One missed or one extra is wrong.

6 A, B, D

Tick exactly these: A: 9/20; B: 1/8; D: 15/16. One missed or one extra is wrong.

8 A, B

Tick exactly these: A: 3/4; B: 13/40. One missed or one extra is wrong.

10 B, D, E

Tick exactly these: B: 1/2; D: 3/4; E: 2/5. One missed or one extra is wrong.