Fractions Staart Test Practice
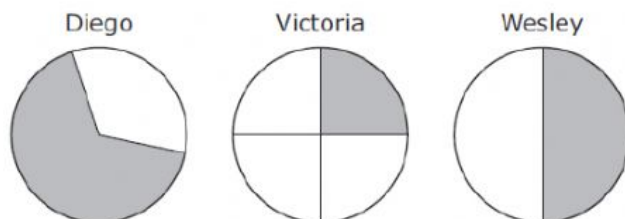
2 Three friends divided three pizzas into pieces. The shaded parts of the models represent the pieces that the friends ate.

Diego   Victoria   Wesley

Which statement describes the fraction of a pizza that one of the friends ate?

F   Diego ate $\frac{1}{2}$ of a pizza, because he ate the largest piece of his 2 pieces.

G   Victoria ate $\frac{1}{3}$ of a pizza, because she ate 1 piece and had 3 equal-size pieces left over.

H   Wesley ate $\frac{1}{2}$ of a pizza, because he ate 1 piece of his 2 equal-size pieces.

J   Victoria ate $\frac{3}{1}$ of a pizza, because she ate 1 piece and had 3 pieces left over.

Models R and T are shown.
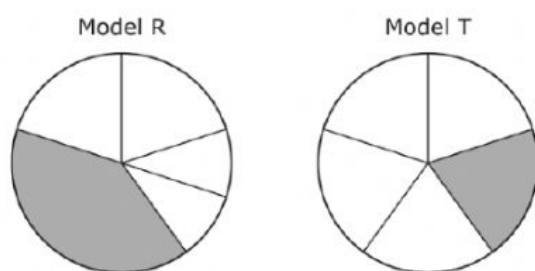
Model R   Model T

Which statement is true?

A   The shaded parts of Model R and Model T are different sizes, but each model represents the same fraction of the whole.

B   The shaded part of Model R cannot be written as the fraction $\frac{1}{5}$, because the parts are not all equal in size.

C   The shaded part of Model T is $\frac{1}{4}$, because the parts are all equal in size.

D   The total number of parts in Model R is 5, so $\frac{1}{5}$ of Model R is shaded.

23 There are 4 books on a shelf. In the model the shaded books represent nonfiction books.
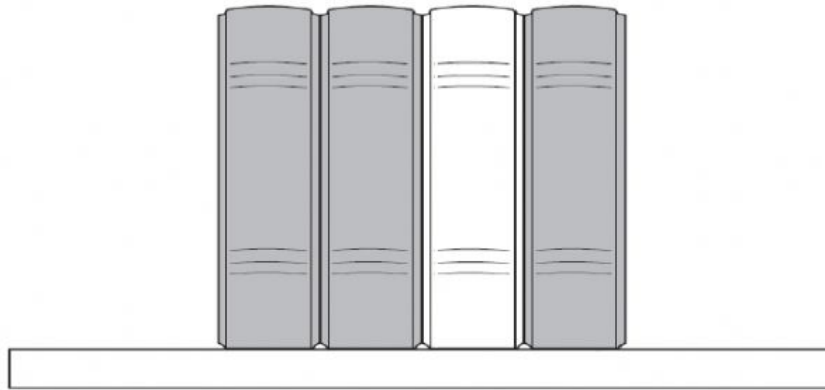
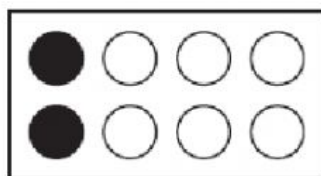Which expression represents the fraction of the books on the shelf that are nonfiction?

A $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$

B $\frac{1}{4} + \frac{1}{4} + \frac{1}{4}$

C $\frac{1}{3} + \frac{1}{3} + \frac{1}{3}$

D $\frac{3}{1} + \frac{3}{1} + \frac{3}{1}$

15 The picture represents the trophies 3 brothers have on a shelf. Each brother won the same number of trophies.

What fraction of the trophies did each brother win?

A $\frac{2}{3}$

B $\frac{2}{6}$

C $\frac{3}{6}$

D $\frac{3}{3}$

21 Irene has a group of counters, as shown.

Which two fractions can represent the black counters in the group?

A $\frac{2}{6}$ and $\frac{2}{8}$

B $\frac{1}{3}$ and $\frac{2}{6}$

C $\frac{1}{4}$ and $\frac{2}{8}$

D $\frac{1}{4}$ and $\frac{2}{4}$

Point P on the number line represents two equivalent fractions.

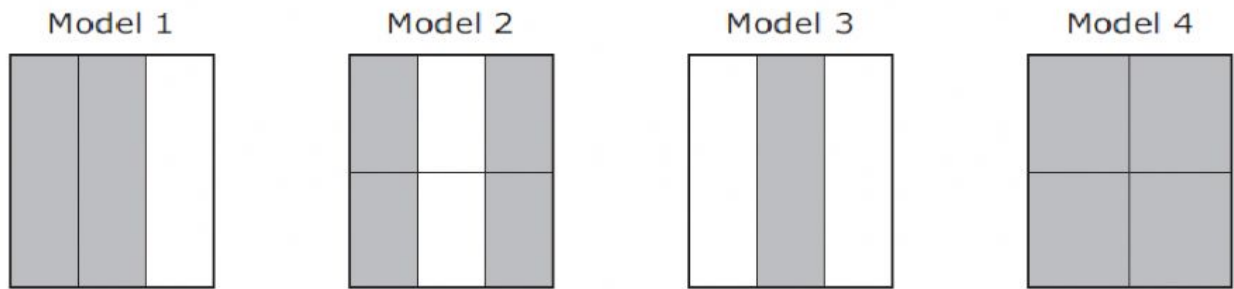Which two equivalent fractions can point P represent?

A $\frac{1}{4}$ and $\frac{1}{8}$

B $\frac{1}{3}$ and $\frac{2}{6}$

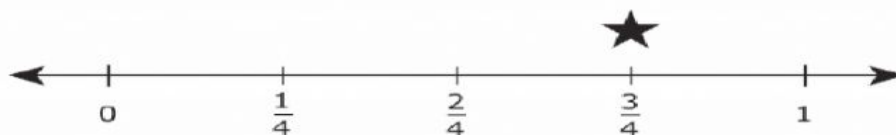**C** $\frac{1}{4}$ and $\frac{2}{8}$

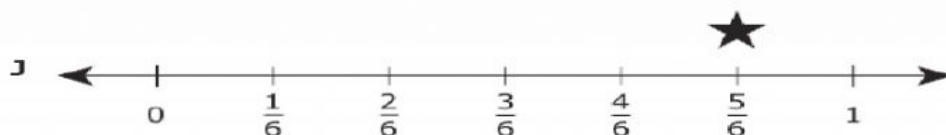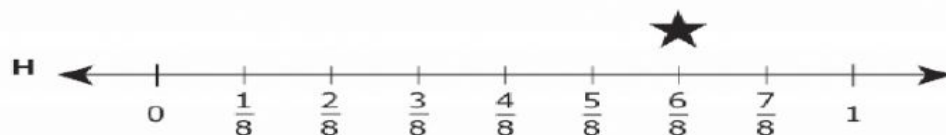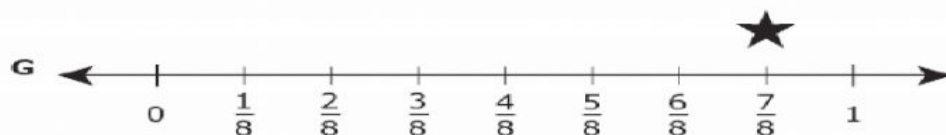**D** $\frac{1}{4}$ and $\frac{3}{4}$

8 Four fraction models are shown.

| Model 1 | Model 2 | Model 3 | Model 4 |

Which two models are shaded to show equivalent fractions?

F Models 1 and 2

G Models 1 and 3
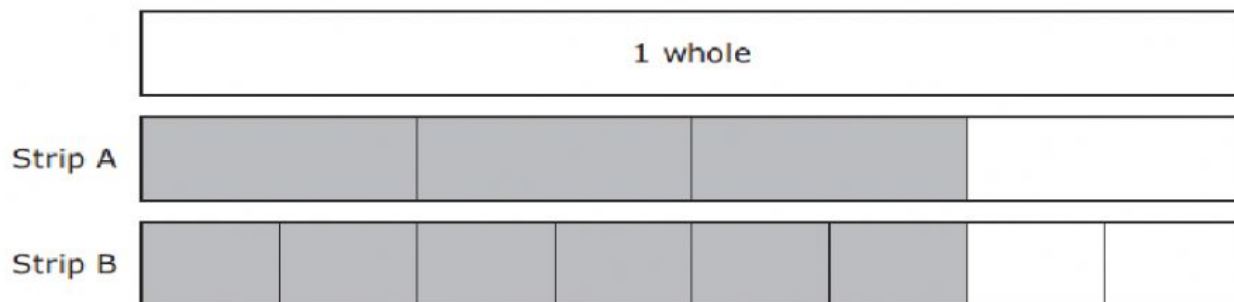
H Models 2 and 4

J Models 2 and 3

20 Eddie marked the fraction $\frac{3}{4}$ with a star on the number line shown.

Which of these number lines shows a fraction equivalent to $\frac{3}{4}$ marked with a star?

F

G

H

J

12 Each strip of the diagram is shaded to represent a fraction of 1 whole.

1 whole

Strip A

Strip B

The fractions represented are —

F equivalent, because the shaded area of Strip B is greater than the shaded area of Strip A

G not equivalent, because Strip A has 4 parts in all and Strip B has 8 parts in all

H equivalent, because the shaded area of Strip A is the same as the shaded area of Strip B

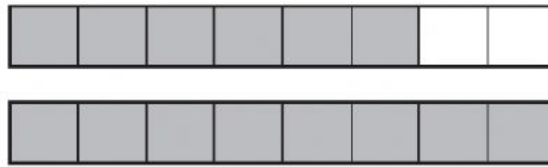**J** not equivalent, because Strip A has 3 shaded parts and Strip B has 6 shaded parts

17 Fraction strips are shown.
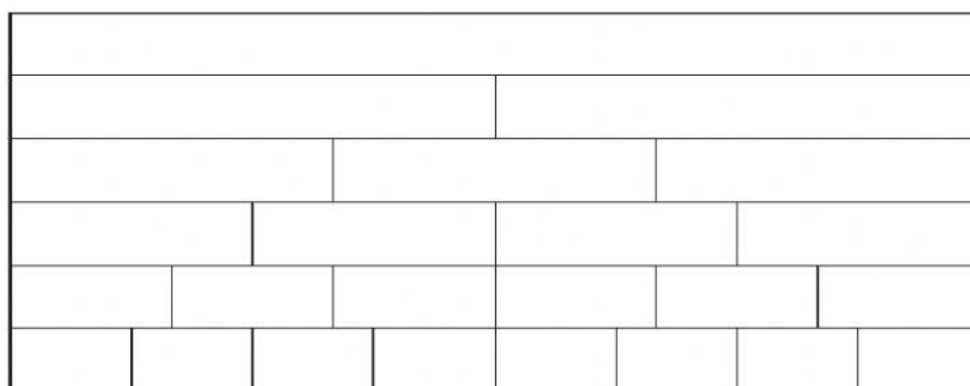
Which comparison is true?

A $\frac{1}{6} < \frac{1}{4}$

B $\frac{1}{3} < \frac{1}{8}$

**C** $\frac{1}{4} > \frac{1}{2}$

D $\frac{1}{8} = \frac{2}{8}$

26 The models shown are the same size. Each model is divided into equal-size parts and is shaded to represent a fraction.

Which statement is true?

F $\frac{6}{8} < \frac{8}{8}$, because sixths are smaller parts than eighths

G $\frac{6}{8} < \frac{8}{8}$, because 6 out of 8 parts is less than 8 out of 8 parts

H $\frac{6}{8} > \frac{8}{8}$, because sixths are larger parts than eighths

J $\frac{6}{8} > \frac{8}{8}$, because 6 out of 8 parts is greater than 8 out of 8 parts
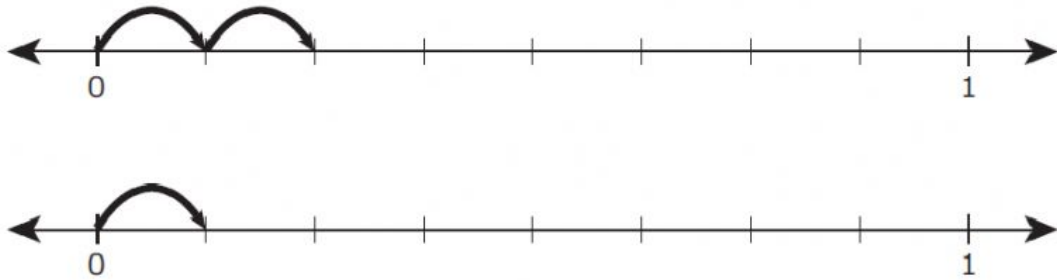
Fraction strips are shown.
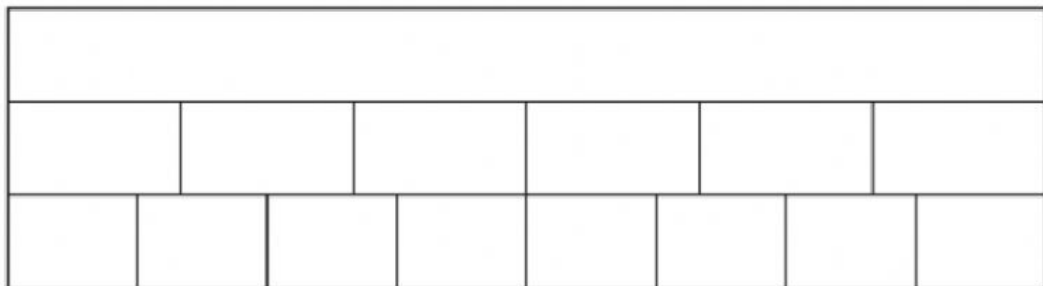
Which comparison and explanation are true?

A $\frac{5}{6} < \frac{5}{8}$, because eighths are larger than sixths

B $\frac{5}{6} < \frac{5}{8}$, because sixths are larger than eighths

C $\frac{5}{6} > \frac{5}{8}$, because eighths are larger than sixths

D $\frac{5}{6} > \frac{5}{8}$, because sixths are larger than eighths

6 The number lines model two different fractions.
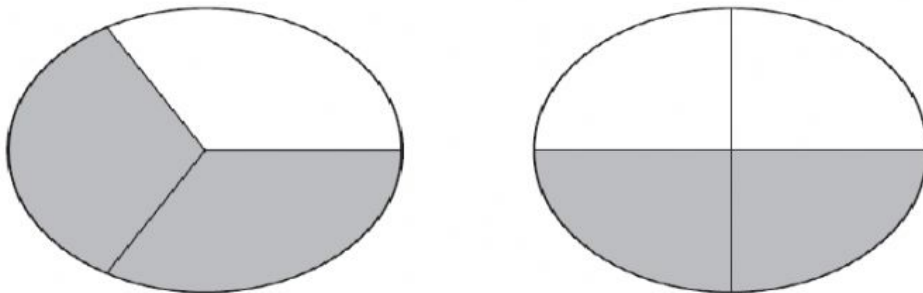
Which comparison of these fractions is true?

F $\frac{1}{2} > \frac{1}{1}$

G $\frac{2}{8} > \frac{1}{8}$

H $\frac{1}{8} = \frac{2}{8}$

J $\frac{2}{8} < \frac{1}{8}$

28 The models shown are the same size and are each divided into equal-size parts. The models are shaded to represent two fractions.
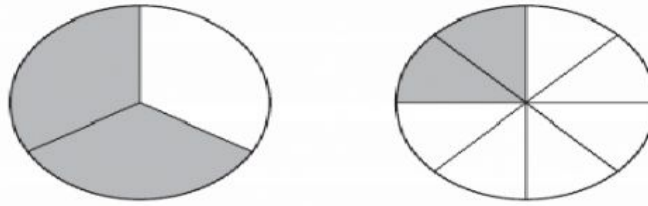
Which statement is true?

F $\frac{2}{3} > \frac{2}{4}$, because thirds are larger than fourths.

G $\frac{2}{3} = \frac{2}{4}$, because each model has 2 parts shaded.

H $\frac{1}{3} < \frac{1}{4}$, because 3 is less than 4.

**J** $\frac{1}{3} = \frac{1}{4}$, because each model shows 1 whole.

11 The models shown are the same size and are each divided into equal parts. The models are shaded to show two fractions.

Based on the models, which statement is true?

A $\frac{1}{3}$ is greater than $\frac{6}{8}$, because thirds are larger than eighths

B $\frac{2}{3}$ is greater than $\frac{2}{8}$, because 2 shaded parts out of 3 parts is greater than 2 shaded parts out of 8 parts

C $\frac{1}{3}$ is less than $\frac{2}{8}$, because 1 shaded part out of 3 parts is less than 2 shaded parts out of 8 parts

D $\frac{2}{3}$ is less than $\frac{2}{8}$, because thirds are smaller than eighths

Brandon drew the two congruent squares shown.
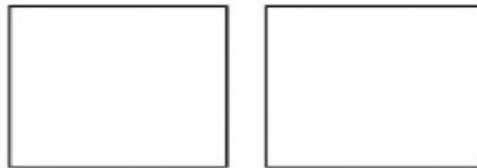
- He divided one square into 2 congruent triangular parts.
- He divided the other square into 2 congruent rectangular parts.

Which statement is true?

F Each triangular part and each rectangular part represents $\frac{1}{2}$ the area of one square.

G Each triangular part has an area that is greater than the area of each rectangular part.

H Each triangular part and each rectangular part represents $\frac{1}{4}$ the area of one square.

J Each rectangular part has an area that is greater than the area of each triangular part.

26 Kailani drew four congruent squares. She shaded the same fraction of ea square. This is one of Kailani's squares.
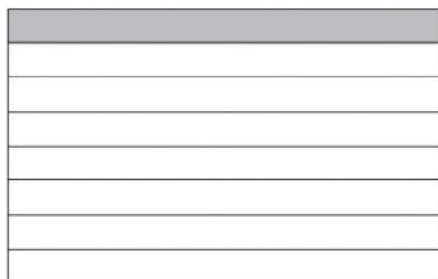
Which square CANNOT be another one of Kailani's squares?

F

H

G

J