

# Quantitative Reasoning, Algebra, and Statistics

## Sample Questions

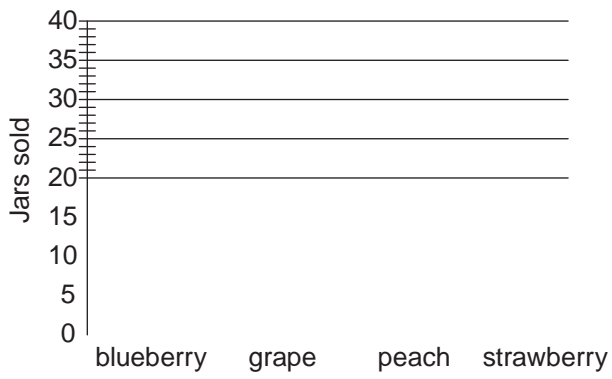
# The College Board

7KH &ROOHJH %RDUG LV D PLVVLRQ GULYHQ QRW IRU SUR@W RUJDQL]DWLRQ WK  
VWXGHQWV WR FROOHJH VXFFHVV DQG RSSRUWXQLW\ )RXQG HG LQ WKH &R  
ZDV FUHDWHG WR H[SDQG DFFHVV WR KLJKHU HGXFDWLRQ 7RGD\ WKH PHPEHU  
DVVRFLDWLRQ LV PDGH XS RI RYHU RI WKH ZRUOG^V OHDGLQJ HGXFDWLRQ  
DQG LV GHGLFDWHG WR SURPRWLQJ H[FHOHQFH DQG HTXLW\ LQ HGXFDWLRQ  
&ROOHJH %RDUG KHOSV PRUH WKDQ VHYHQ PLOOLRQ VWXGHQWV SUHSDUH IRU  
WUDQVLWLRQ WR FROOHJH WKURXJK SURJUDPV DQG VHUylFHV LQ FROOHJH UH  
FROOHJH VXFFHVV \ LQFOXGLQJ WKH \$DQDQDQ 3DFPHQW 3URJUDP  
7KH RUJDQL]DWLRQ DOVR VHUylHV WKH HGXFDWLRQ FRPPXQLW\ WKURXJK UHVHD  
DGYRFD\ RQ EHKDOI RI VWXGHQWV HGXFDWRUV DQG VFKRROV  
)RU IXUWKHU LQIRUPDWLRQ YLVLW [www.collegeboard.org](http://www.collegeboard.org)

## ACCUPLACER Quantitative Reasoning, Algebra, and Statistics Sample Questions

7KH QH[W JHQHUDWLRQ DQWXLWLYH 5HDVRLQJ \$OJHEUD DQG  
6WDWLWLVLFV SODFPHQW WHVW LV D FRPSXWHU DGDSWLYH DVVHVVPHQW RI W  
IRU VHOHFWHG PDWKHPDWLFV FRQWHQW 4XHVWLRQV ZLOO IRFXV RQ D UDQJH  
LQFOXGLQJ FRPSXWLQJ ZLWK UDWRQDO QXPEHUV DSSO\LQJ UDWRV DQG SUR  
UHDVRLQJ FUHDWLQJ OLQH DU H[SUHVVLRQV DQG HTXDWRQV JUDSKLQJ DQG  
OLQH DU HTXDWRQV XQGHUVWDQGLQJ SUREDELOLW\ DQG VHW QRWDWLRQ DQ  
JUDSKLFDO GLVSOD\ ,Q DGGLWLRQ TXHVWLRQV PD\ DVVHV D VWXGHQW^V PD  
YLD FRPSXWDWRQDO RU °XHQF\ VNLOOV FRQFHSWXDO XQGHUVWDQGLQJ RU W  
DSSO\ PDWKHPDWLFV SUHVHQWHG LQ D FRQWH[W \$OO TXHVWLRQV DUH PXOWLS  
IRUPDW DQG DSSHU GLVFUHWHO\ VWDQG DORQH DFURVV WKH DVVHVVPHQW  
7KH IROORZLQJ NQRZOHGJH DQG VNLOO FDWHJRULHV DUH DVVHVVPHQW  
5DWLRQDO QXPEHUV  
5DWLR DQG SURSRUWLRQDO UHODWLRQVKLSV  
([SRQHQWV  
\$OJHEUDLF H[SUHVVLRQV  
/LQH DU HTXDWRQV  
/LQH DU DSSOLFDWRQV  
3UREDELOLW\ DQG VHWV  
'HVFULSWLYH VWDWLWLVLFV  
\*HRPHWU\ FRQFHSWV

4 ?



8. Which of the following fractions is equivalent

to  $\frac{6 \cdot (9)}{8}$ ?

- A.  $\frac{3}{8}$
- B.  $\frac{3}{8}$
- C.  $\frac{15}{8}$
- D.  $\frac{15}{8}$

9.

	Plans to vote "yes" on issueQ	Plans to vote "no" on issueQ	Total
Plans to vote "yes" on issueP	8	12	20
Plans to vote "no" on issueP	14	16	30
Total	22	28	50

- A. 0.16
- B. 0.36
- C. 0.40
- D. 0.67

- A.  $\frac{1}{15}$
- B.  $\frac{1}{125}$
- C. -15
- D. -125

- A.  $2\frac{2}{3}$
- B. 4
- C.  $5\frac{1}{3}$
- D. 12

$(x^3 \cdot x^2)$ ?

- A.  $x^{10}$
- B.  $x^{15}$
- C.  $x^{25}$
- D.  $x^{30}$

- A.  $4(2x + 7)$
- B.  $8(x + 4)$
- C.  $5x + 17$
- D.  $8x + 13$

17. The elevation at the summit of Mount Whitney is 4,418 meters above sea level. Climbers begin at a trailhead that has an elevation of 2,550 meters above sea level. What is the change in elevation, to the nearest foot, between the trailhead and the summit? (1 foot = 0.3048 meters)

- A. -7
- B. -3
- C. 3
- D. 7

$L = \{0, 20, 40, 80, 100\}$   
 $M = \{5, 10, 15, 20, 25\}$   
 $N = \{10, 20, 30, 40, 50\}$

- A.  $(-3, -2)$
- B.  $(3, -2)$
- C.  $(-2, 3)$
- D.  $(2, 3)$

$L \cap (M \cup N)$

- A.  $\{0, 5, 10, 15, 20, 25, 30, 40, 50, 80, 100\}$
- B.  $\{0, 10, 20, 40, 80, 100\}$
- C.  $\{20, 40\}$
- D.  $\{20\}$

## Answer Key

D  
C  
D  
\$  
\$  
D  
C  
B  
B  
\$  
C  
\$  
D  
C  
B  
C  
C  
B  
B  
D

$\bar{2} \quad \bar{2} \quad \bar{2} \quad \bar{4}$

$\bar{4} \quad \bar{2} \quad \bar{4}$

125 11 235

659 808 608 465 643 3183 and 3183 5 6366

$\frac{3}{8}$

150gallons 15 gallons per minute 100

8  $\frac{2}{3}$

4x 20 4x 8

4(x 5) 4x 8  
8Tf 3 Tr 9.25 0 0 00 0 9.25 48.6706 421.35290.7 10 166 Tm 6



(90minutes 40 W D)V N V

(2 25 10 225)

90 10

8 20 04

$$\frac{1}{5 \times 5 \times 5} = \frac{1}{125}$$

$$\frac{1}{5^3}$$

$$\frac{1}{5 \times 3}$$

5 ( 3)

$$(x^3 x^2)^5$$

4 418 2 550 1 868

(1 868 0 3048 6 129)